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SAMSUNG LASER PRINTER

User's Guide

LASER PRINTER

ML-1250

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Environmental and Safety Consideration

Laser Safety Statement

The printer is certified in the U.S. to conform to the requirements of DHHS 21 CFR, chapter 1 Subchapter J for Class I(1) laser products, and elsewhere is certified as a Class I laser product conforming to the requirements of IEC 825.

Class I laser products are not considered to be hazardous. The laser system and printer are designed so there is never any human access to laser radiation above a Class I level during normal operation, user maintenance, or prescribed service condition.

WARNING

Never operate or service the printer with the protective cover removed from Laser/Scanner assembly. The reflected beam, although invisible, can damage your eyes.

CAUTION - INVISIBLE LASER RADIATION WHEN THIS COVER OPEN. DO NOT OPEN THIS COVER.

VORSICHT - UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.

ATTENTION - RAYONNEMENT LASER INVISIBLE EN CAS D'OUVERTURE.EXPOSITION DAN GEREUSE AU FAISCEAU.

ATTENZIONE -RADIAZIONE LASER INVISIBILE IN CASO DI APERTURA. EVITARE L'ESPOSIZIONE AL FASCIO.

PRECAUCION -RADIACION LASER IVISIBLE CUANDO SE ABRE. EVITAR EXPONERSE AL RAYO.

ADVARSEL. - USYNLIG LASERSTRÅLNING VED ÅBNING NÅR SIKKERHEDSBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSAETTELSE FOR STRÅLNING.

ADVARSER. - USYNLIG LASERSTRÅLNING NÅR DEKSEL ÅPNES. STIRR IKKE INN I STRÅLEN. UNNGÅ EKSPONERING FOR STRÅLEN.

VARNING - OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPAND OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN. STRÅLEN ÄR FARLIG.

VARO! - AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE ÄLÄ KATSO SÄTEESEEN.

Ozone Safety

During normal operation, the Samsung ML-1250 printer produces ozone. The ozone produced does not present a hazard to the operator. However, it is advisable that the machine be operated in a well ventilated area.

If you need additional information about ozone, please request your nearest Samsung dealer.

Power Saver

This printer contains advanced energy conservation technology that reduces power consumption when it is not in active use.

When the printer does not receive data for an extended period of time, power consumption is automatically lowered.

The energy star emblem does not represent EPA endorsement of any product or service.

Radio Frequency Emissions

Fcc Regulations

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Do not make any changes or modifications to the equipment unless otherwise specified in the manual. If such changes or modifications should be made, you must first stop operation of the equipment.

Use of shielded cable is required to comply with Class B limits in Subpart B of Part 15 of FCC Rules.

CAUTION: Changes or modifications not expressly approved by the manufacture responsible for compliance could void the user's authority to operate the equipment.

Canadian Radio Interference Regulations

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus", ICES-003 of the Industry and Science Canada.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe B prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques", ICES-003 édictée par l'Industrie et Sciences Canada.

Declaration of Conformity (European Countries)
Approvals and Certifications

CE

The CE marking applied to this product symbolises Samsung Electronics Co., Ltd. Declaration of Conformity with the following applicable 93/68/EEC Directives of the European Union as of the dates indicated:

January 1, 1995: Council Directive 73/23/EEC Approximation of the laws of the member states related to low voltage equipment.

January 1, 1996: Council Directive 89/336/EEC (92/31/EEC), approximation of the laws of the Member States related to electromagnetic compatibility.

March 9, 1999: Council Directive 1999/5/EC on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity.

A full declaration, defining the relevant Directives and referenced standards can be obtained from your Samsung Electronics Co., Ltd. representative.

EC Certification

Certification to 1999/5/EC Radio Equipment & Telecommunications Terminal Equipment Directive (FAX)

This Samsung product has been self-certified by Samsung for pan-European single terminal connection to the analogue public switched telephone network (PSTN) in accordance with Directive 1999/5/EC. The product has been designed to work with the national PSTNs and compatible PBXs of the European countries:

In the event of problems, you should contact the Euro QA Lab of Samsung Electronics Co., Ltd. in the first instance.

The product has been tested against TBR21 and TBR 38. To assist in the use and application of terminal equipment which complies with this standard, the European Telecommunication Standards Institute (ETSI) has issued an advisory document (EG 201 121) which contains notes and additional requirements to ensure network compatibility of TBR21 terminals. The product has been designed against, and is fully compliant with, all of the relevant advisory notes contained in this document.

chapter 1

Introduction

Congratulations on your purchase of a Samsung ML-1250 printer! This chapter provides information on the following topics:

- ♦ Special Features
- ♦ Printer Components

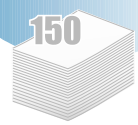
Special Features

Samsung ML-1250 is a versatile, productive printer equipped with special features that will improve print quality, giving you a competitive edge. You can:

Print with excellent quality and high speed

- You can print at **1200 dpi class**. See page 5.12.
- Your printer prints **12 pages-per-minute**.
- The **PCL 6** printer language enables fast printing performance.

Flexible paper handling



- Standard **150-sheet automatic feeder** and a **1-sheet manual feeder** supports various sizes and types of paper.
- Two output locations: Select either **the face-down output tray** or **the face-up output slot** for the most convenient access.

Save your time and money

- If you select **Toner Save** mode, your printer will use less toner. See page 5.6.
- Print multiple pages on a single sheet of paper to save paper (**N-up printing**). See page 5.7.
- One-touch **last page printing** is available in the Ready mode. See page 5.21.
- The printer **conserves electricity** by automatically reducing power consumption when it is not active.
- This product meets **Energy Star** guidelines for energy efficiency.

Create professional documents

- You can customize your documents by using **Watermarks** such as "Confidential." See page 5.14.
- Preprinted forms and letterheads can be printed on plain paper. See page 5.17.
- Print **Posters**. The text and pictures of each page of your document are magnified and printed across the selected sheet of paper. After the document has printed, trim off the white edges of each sheet. Tape the sheets together to form a poster. See page 5.9.

Expand the printer capacity

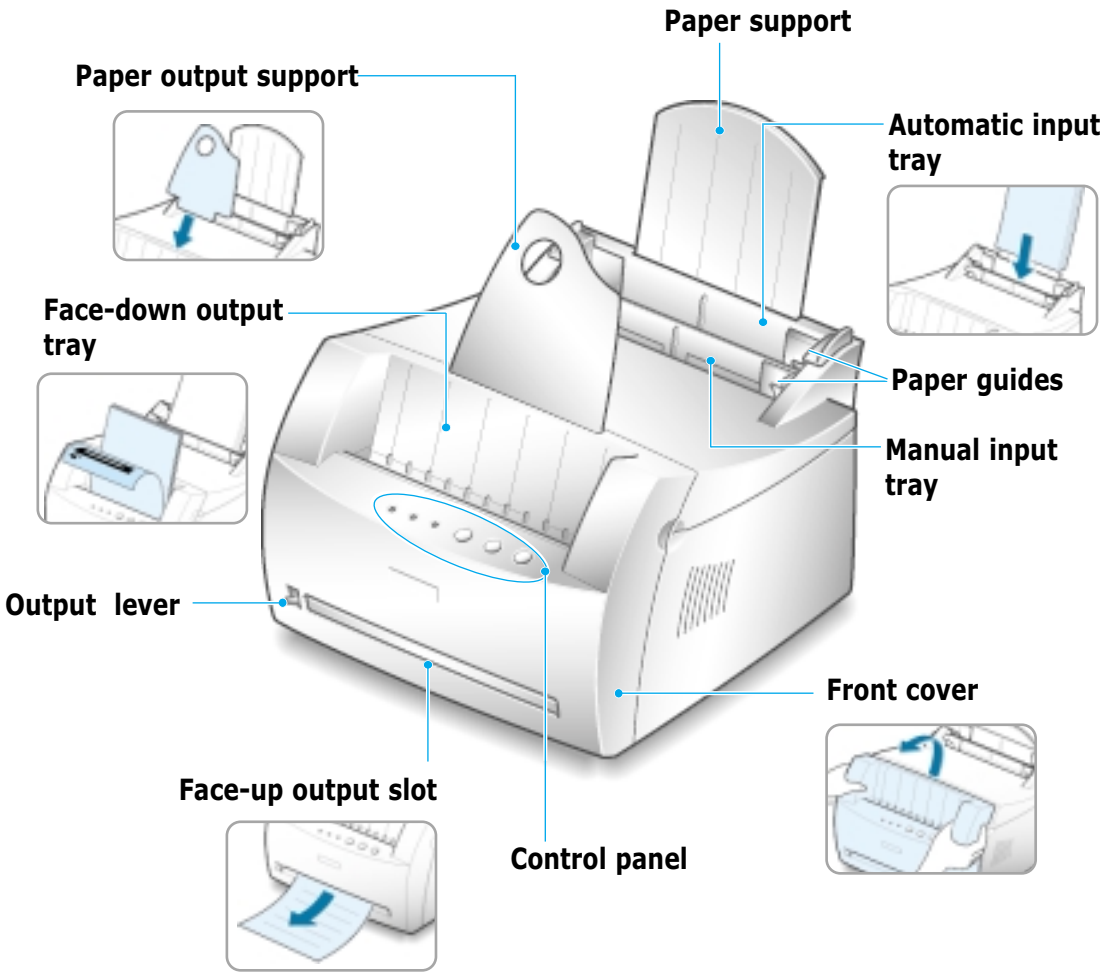
The ML-1250 is shipped with 4 MB of memory included. You can expand the memory capacity of your printer (up to 68 MB maximum) by installing optional memory modules. See page A.30.

Print in various environments

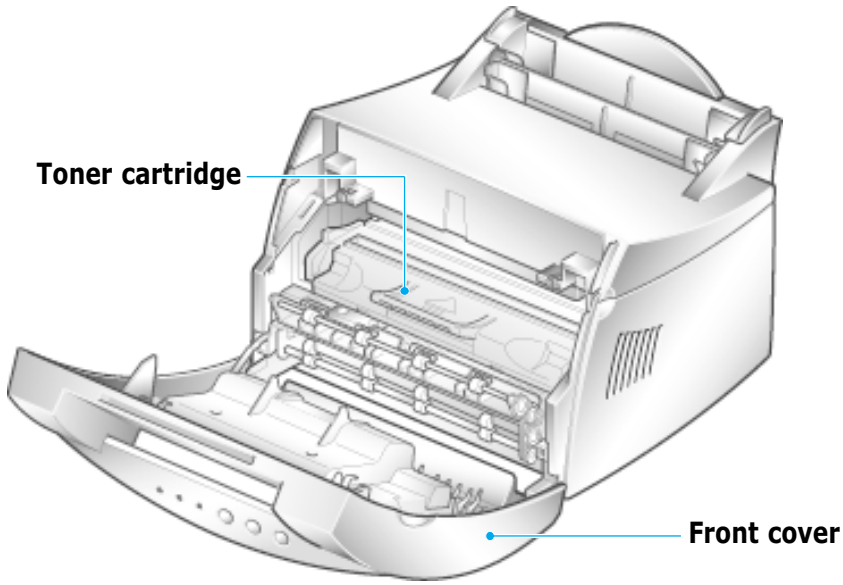
- You can print in **Windows 95/98/Me/NT4.0/2000**.
- Your printer is compatible with **Linux, DOS**, and **Macintosh**.
- The ML-1250 printer comes with both **Parallel** and **USB** interfaces.

Printer Components

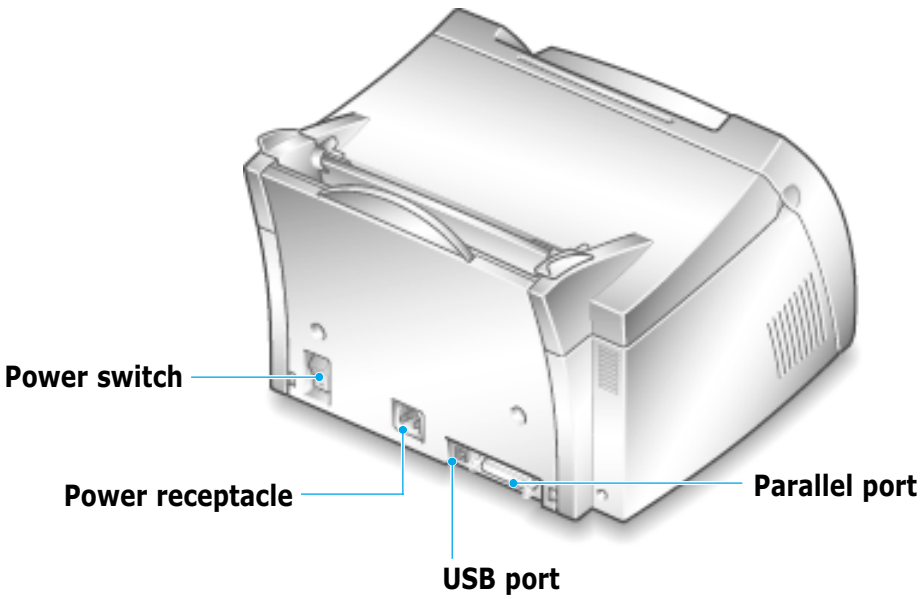
Front View



Inside View



Rear View



chapter 2

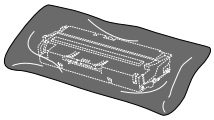
Setting Up Your Printer

This chapter provides step by step information on setting up your printer. Topics included in this chapter are:

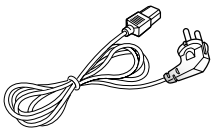
- ***STEP 1***: Unpack Your Printer
- ***STEP 2***: Install the Toner Cartridge
- ***STEP 3***: Load Paper
- ***STEP 4***: Connect to the Computer with a Parallel Cable
- ***STEP 5***: Turn on the Printer
- ***STEP 6***: Print a Demo Page!
- ***STEP 7***: Install the Printer Software
- Installing Software from Diskette

STEP 1 Unpack Your Printer

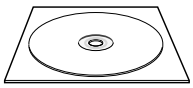
1 Remove the printer and all accessories from the packing carton. Make sure that your printer has been packed with the following items:



Toner cartridge



Power cord



CD-ROM*

Paper Output Support

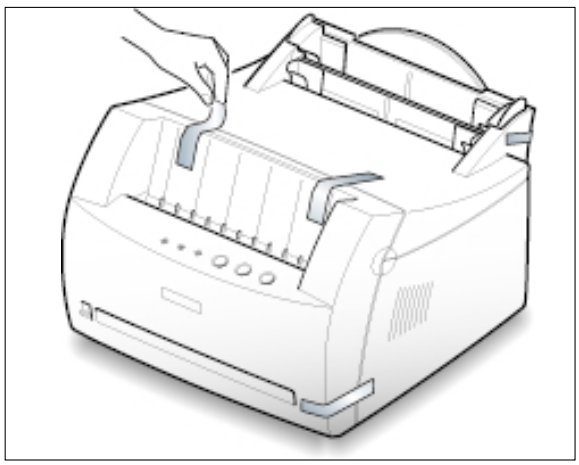
Setup Guide

Notes:

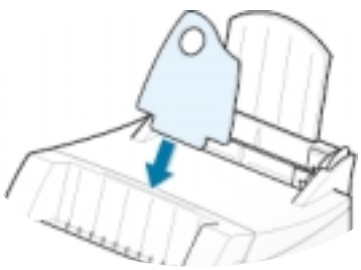
- If any items are missing or damaged, notify your dealer immediately.
- **Components may differ from one country to another.**

* contains the printer driver, the User's Guide, the Adobe Acrobat Reader program, and the Make Your Own Diskette setup software.

2 Carefully remove all packing tapes from the printer.



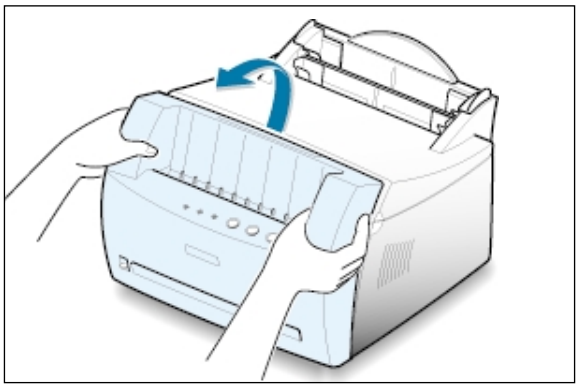
3 Attach the supplied paper output support as shown.



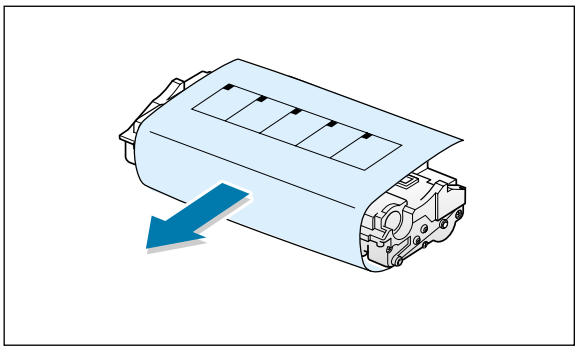
STEP 2

Install the Toner Cartridge

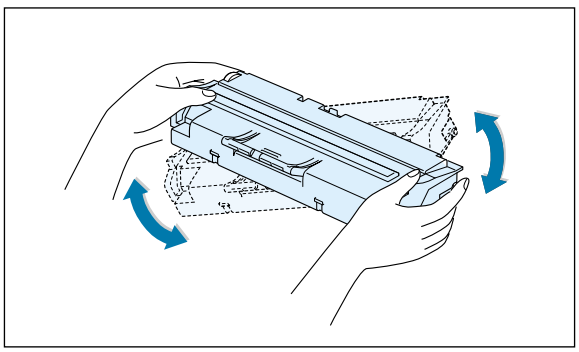
1 Grasp both sides of the front cover and open it by pulling it towards you.



2 Remove the toner cartridge from its bag and then remove the paper covering it. Discard the paper.



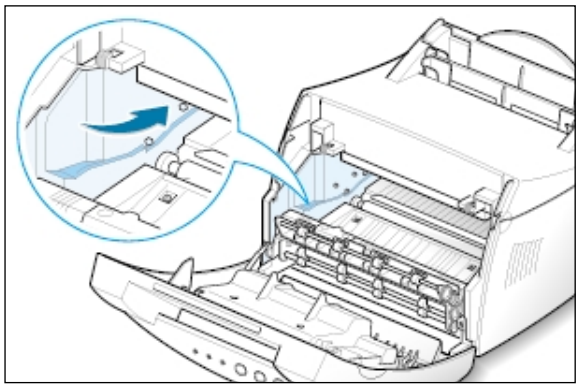
3 Gently shake the cartridge from side to side to evenly distribute the toner inside the cartridge.



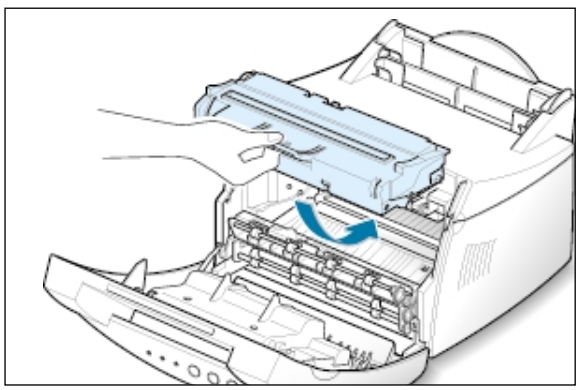
CAUTION:
To prevent damage, do not expose the toner cartridge to light for more than a few minutes. Cover it with a piece of paper, if left exposed for more than a few minutes.

If toner gets on your clothing, wipe it off with a dry cloth and wash clothing in cold water. **Hot water sets toner into fabric.**

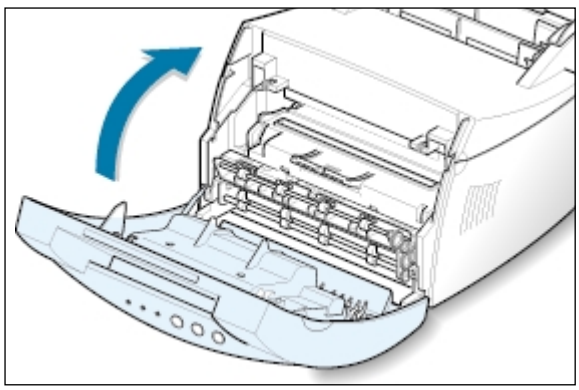
4 Locate the cartridge slots inside the printer, one on each side.



5 Grasp the handle and insert the cartridge in the printer until it snaps into place.



6 Close the front cover. Make sure that the cover is securely closed.

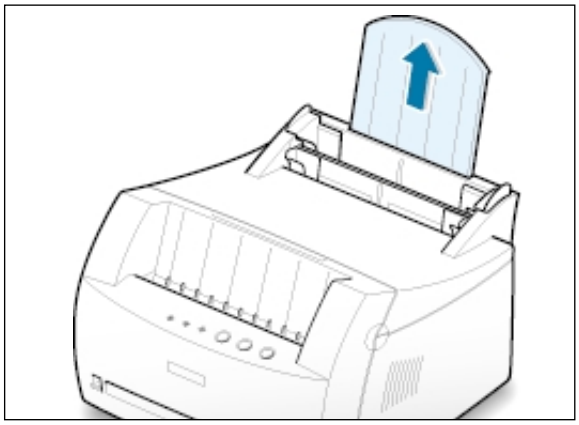


Note: When printing text at 5% coverage, you can expect a toner cartridge life of approximately 2,500 pages (1,000 pages for the toner cartridge that is shipped with the printer).

STEP 3

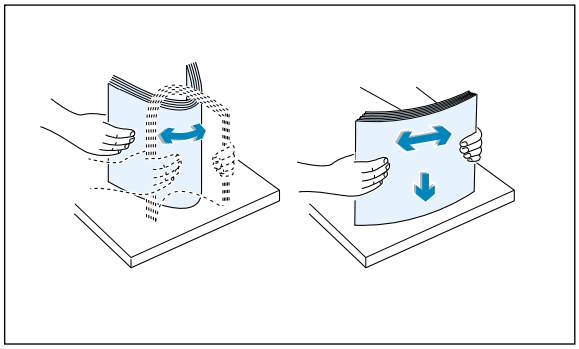
Load Paper

1 Pull the paper support on the automatic input tray up, until it stops.

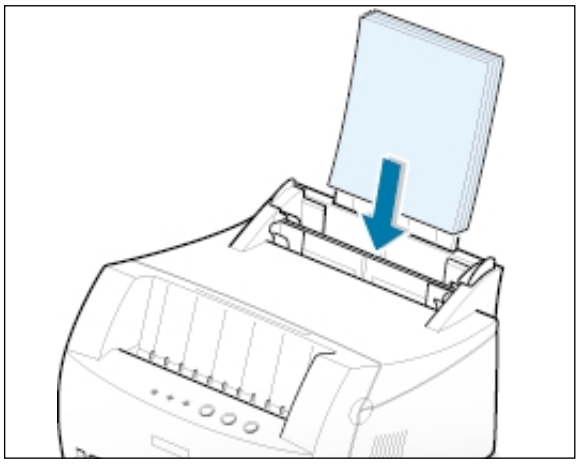


2 Before loading the paper, flex the sheets back and forth to loosen them, and then fan them.

Tap the edges of the stack on a table top to straighten them and prevent paper jams.

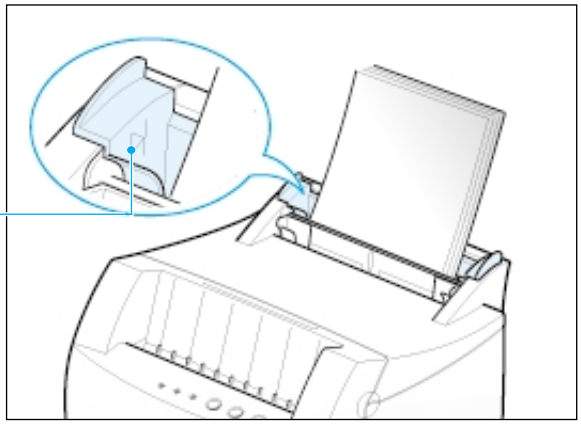


3 Load a stack of paper into the automatic input tray **with the print side facing up**.

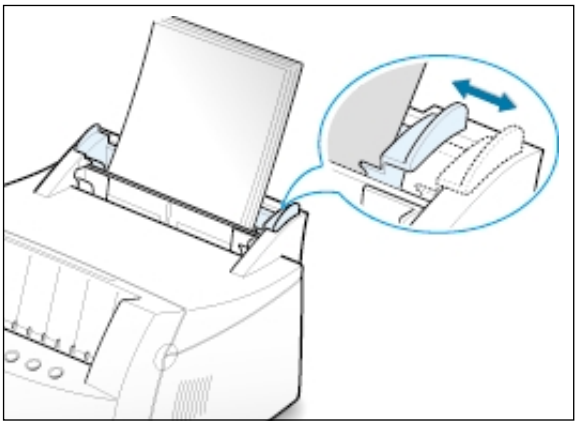


4 Do not load too much. This tray holds up to 150 sheets.

Keep the paper below this height mark.



5 Adjust the paper guides to the width of the paper stack.



Notes:

- Do not push the width guide far enough to cause the media to warp.
- If you do not adjust the width guide, it may cause paper jam.
- If you are needed to add more sheets of paper while printing, remove the remaining paper from the tray at first. Then, reinsert them with the new paper. Note that adding new paper into the remains in the tray may cause paper jams or multiple feeding.

STEP 4

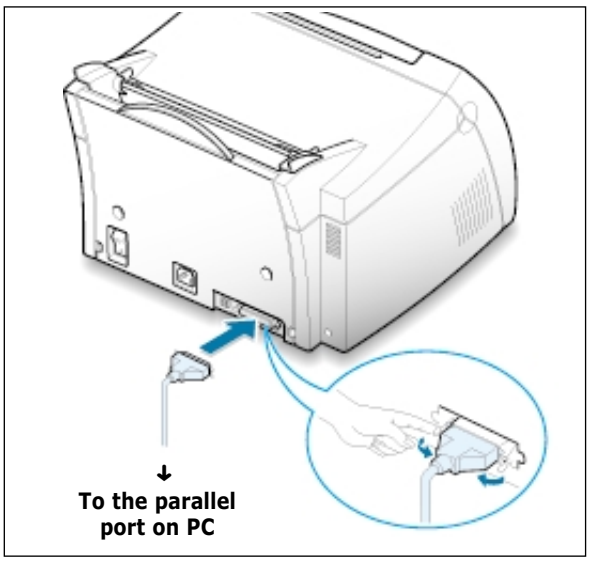
Connect to the Computer with a Parallel Cable

Note: To connect the printer to the parallel port of the computer requires a certified parallel cable.
You will need to buy the IEEE1284 compliant cable.

1 Make sure that both the printer and the computer are turned off.

2 Plug the parallel printer cable into the connector on the back of the printer.

Push the metal clips down to fit inside the notches on the cable plug.

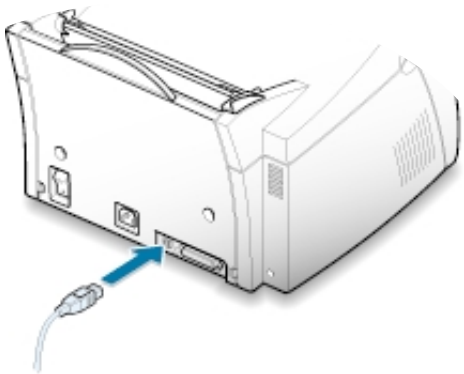


3 Connect the other end of the cable to the parallel interface port on your computer, and tighten the screws.

See your computer documentation if you need help.

If you are using a USB interface

Go to "Using Your Printer with a USB Cable" on page A.10.

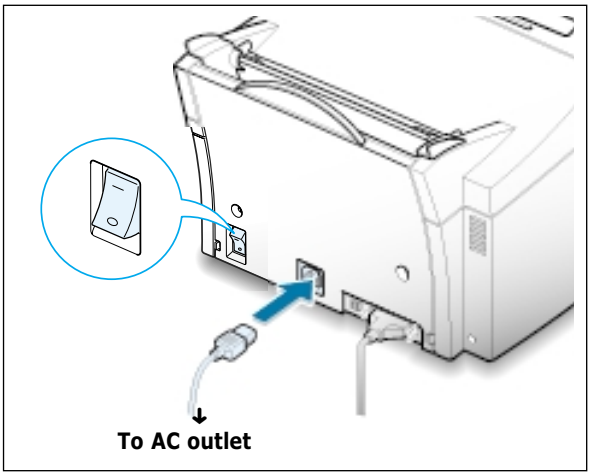


STEP 5 Turn on the Printer

1 Plug the power cord into the power receptacle on the back of the printer.

2 Plug the other end into a properly grounded AC outlet.

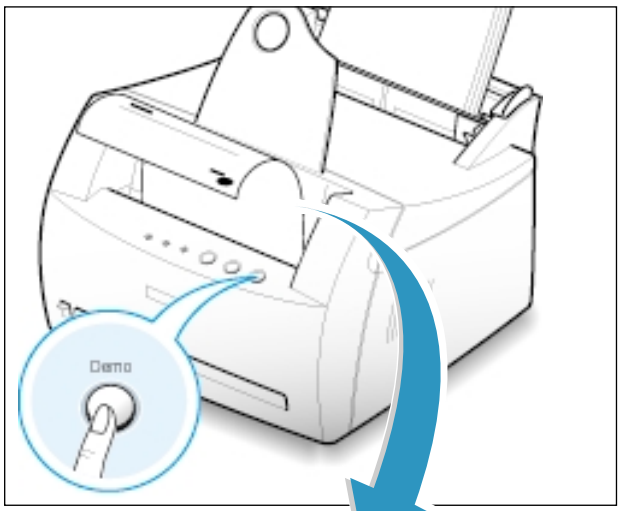
3 Turn on the power.



STEP 6 Print a Demo Page!

As the printer powers up, all the printer control panel lights turn on briefly. When only the **Data** light remains on, press and hold the **Demo** button.

Hold down the button for about 2 seconds until all lights blink slowly. Then release the button and the demo page will print.



The demo page provides a sample of print quality to help you verify that the printer is printing correctly.

STEP 7

Install the Printer Software

Included with your printer is a CD-ROM containing the printer driver for some of the most popular Windows software applications. To operate your printer, you must install a printer driver, which translates data from your application into data that the printer understands.

If you are printing with a parallel interface

Go to page 2.9 for information on installing the print software on a computer that is attached directly to the printer with a parallel cable.

If you are printing with a USB interface

Go to "Using Your Printer with a USB Cable" on page A.10, for information on installing the print software on a USB-enabled computer.

If you are printing from Macintosh

Go to "Using Your Printer with a Macintosh" on page A.16, for information on installing the print software and printing from Macintosh.

If you are printing in DOS

Go to "Printing from DOS Application" on page A.23, for information on installing the DOS RCP utility and printing from DOS applications.

If you are printing in Linux

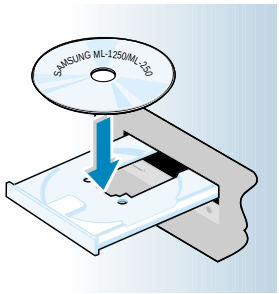
Go to "Linux Driver Installation" on page A.28, for information on installing the Linux driver.

Before Installing the Printer Software

Verify the following:

- At least **16 MB or more of RAM** is installed on your PC.
- There is at least **50 MB of free disk space** on your PC.
- **All applications are closed on your PC before beginning installation**.
- Windows 95, Windows 98, Windows Me, Windows NT 4.0 or Windows 2000.

Installing the Printer Software from the CD-ROM



Note: If the New Hardware Found box appears during the installation procedure, click the [X] in the upper right corner of the box, or click **Cancel**.

1 Place the CD-ROM in the CD-ROM drive. Install will start automatically.

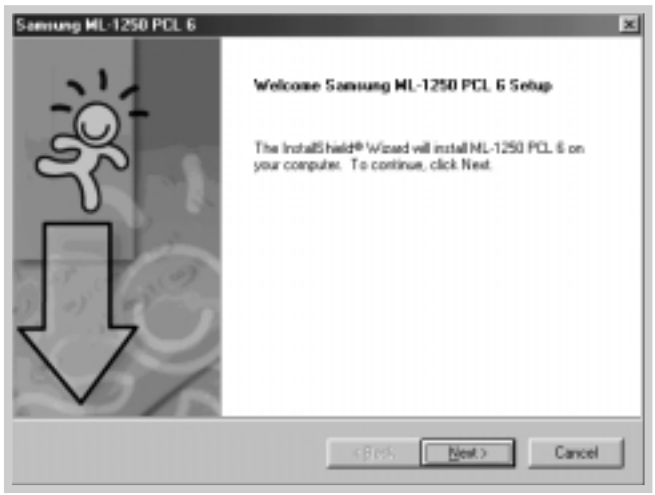
If the CD-ROM drive does not automatically run:

Select **Run** from the **Start** menu, and type **x:\cdsetup.exe** in the Open box (where **x** is the drive letter for the CD-ROM drive), and then click **OK**.

2 When the opening screen appears, select the appropriate language.

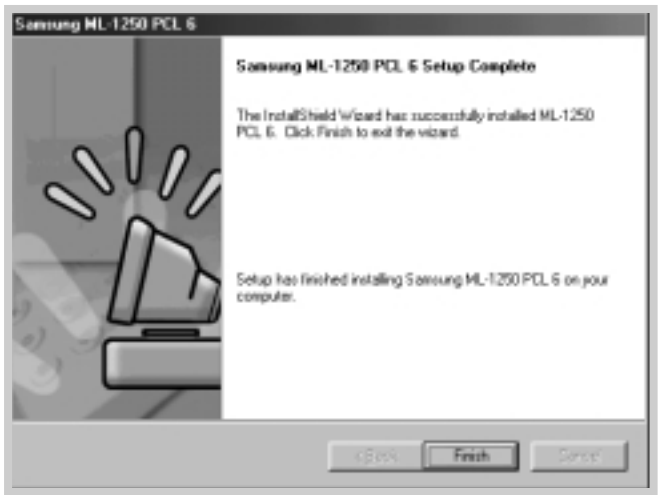
3 Click **Install the Samsung Software on your PC**.

4 The Welcome window opens. Click **Next**.


Samsung ML-1250 PCL 6
Welcome Samsung ML-1250 PCL 6 Setup
The InstallShield® Wizard will install ML-1250 PCL 6 on your computer. To continue, click Next.
< Back
Next >
Cancel

5 The files are copied into the appropriate directory.

6 Click **Finish**.


Samsung ML-1250 PCL 6
Samsung ML-1250 PCL 6 Setup Complete
The InstallShield Wizard has successfully installed ML-1250 PCL 6. Click Finish to exit the wizard.
Setup has finished installing Samsung ML-1250 PCL 6 on your computer.
< Back
Finish
Cancel

Software Installation Tips

I do not have a CD-ROM drive

If you have access to another computer with a CD-ROM drive, you can use tne Make Diskette utility in Windows to create the disks you need for the installation. Go to "Installing Software from Diskette" on page 2.13.

How do I access printer features ?

Some printer features, such as paper size and page orientation, may be available through your application settings. Use application settings, if available, because they override printer driver settings.

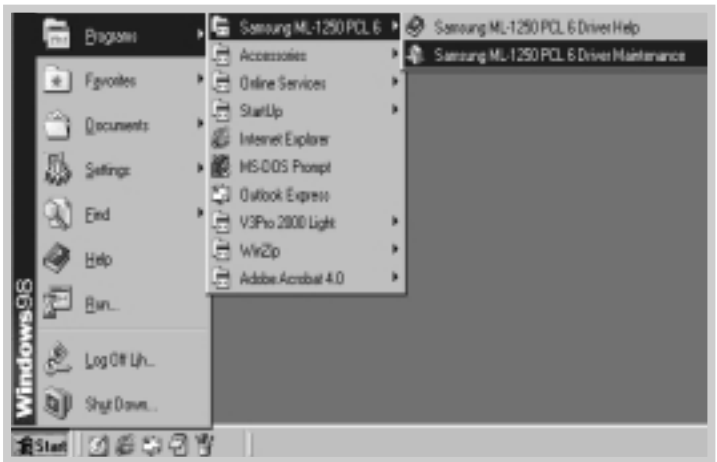
Access advanced printer features through your printer driver. See chapter 5, "Printing Tasks" for instructions on using your printer driver features.

How do I remove the printing software ?

In Windows, after installation, the Uninstall icon in the Samsung ML-1250 program group allows you to select and remove any or all of the Samsung ML-1250 printing system components. If you are upgrading the printer driver, or if your installation fails, uninstall the driver following these instructions.

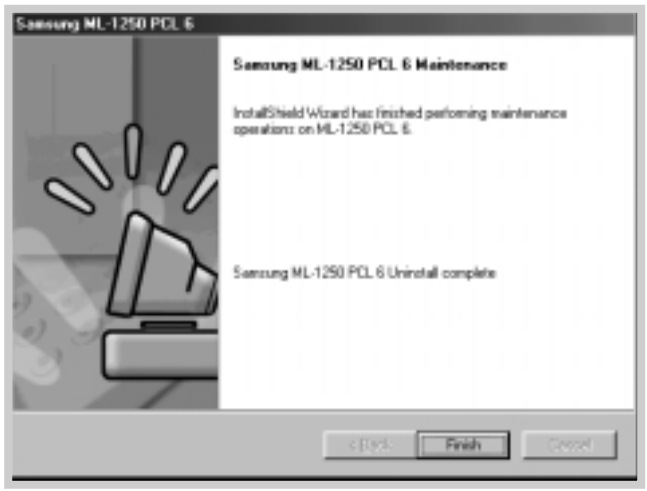
1 From the **Start** menu, select **Programs**.

2 Select **Samsung ML-1250 PCL 6**, and then **Samsung ML-1250 PCL 6 Driver Maintenance**.



3 When your computer confirms your selection, click **OK**.

4 The Samsung ML-1250 printer driver and all of its components are removed from your computer.


Samsung ML-1250 PCL 6
Samsung ML-1250 PCL 6 Maintenance
InstallShield Wizard has finished performing maintenance operations on ML-1250 PCL 6.
Samsung ML-1250 PCL 6 Uninstall complete
< Back
Finish
Cancel

5 Click **Finish**.

If you have problems installing

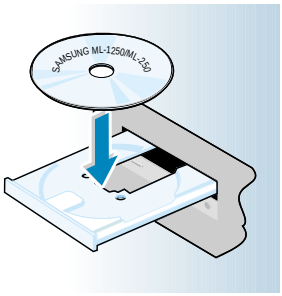
- Exit your software programs. Then turn off the computer and the printer. Turn on the printer, and then turn on the computer.
- Close any virus protection programs that are running on your computer.
- Uninstall the printer software using the instructions above, and then repeat the installation procedure.

Installing Software from Diskette

If you do not have a CD-ROM drive and if you have access to another computer with a CD-ROM drive, you can copy software installation files from your printer software CD-ROM onto floppy diskettes, and then use the diskettes instead of the CD-ROM to install the software.

Making Installation Diskettes

You can make installation diskettes for the Samsung ML-1250 PCL 6 printer driver. Make sure that you have several formatted diskettes ready, and then follow these steps:



1 Insert the CD-ROM shipped with your printer into the CD-ROM drive. Installation will start automatically.

If the CD-ROM drive does not automatically run:

Select **Run** from the **Start** menu, and type **x:\cdsetup.exe** in the Open box (where **x** is the drive letter for the CD-ROM drive), and then click **OK**.

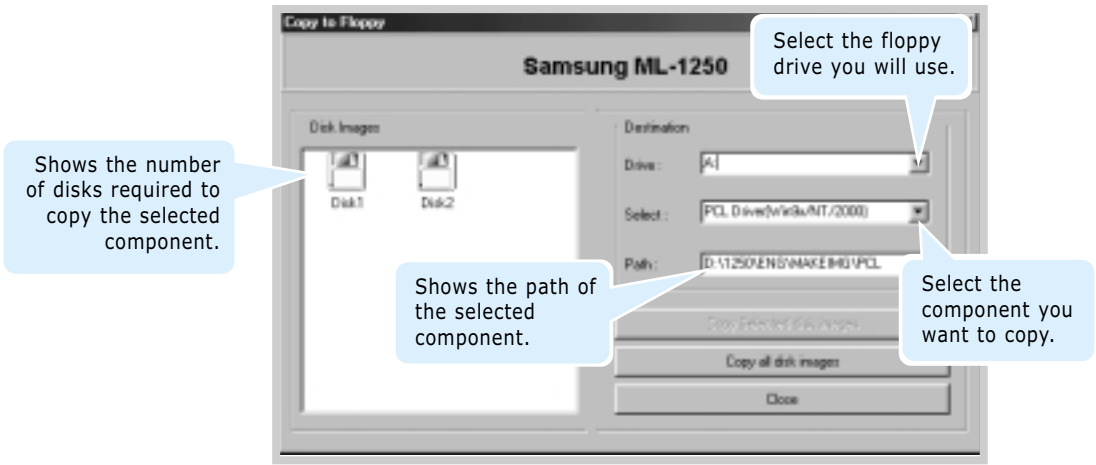
2 When the opening screen appears, select the appropriate language.

3 Click **Make your own Diskette set of software**.

4 The Copy to Floppy dialog box appears.

Select the desired components you want to copy to the diskette from the Select box. You can select PCL Driver, USB Driver and DOS RCP.

Select the floppy disk drive that you will be inserting the diskette into.



5 Click **Copy all disk images**.

If you want to copy a portion of the selected component, select the disk you want to copy in the Disk Images window, and then click **Copy selected disk images**.

6 When prompted, insert a blank, formatted diskette into the floppy drive, and click **Yes** to copy the first diskette. For multiple diskettes, when the first diskette is finished, you are prompted to insert disk 2.

Make sure you label each diskette in order as you create it: ML-1250 PCL 6 driver, disk 1 of 2, etc.

7 If you have more than one disk, insert the next disk and click **Yes**.

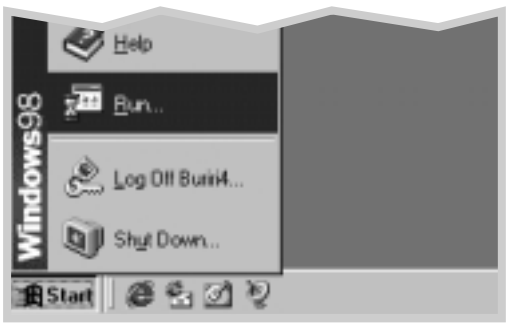
8 When copying to diskettes has been completed, click **Close** in the Copy to Floppy dialog box. Then click **Exit** in the SAMSUNG PRINTER SETUP dialog box.

Installing Software

To install the printer driver from the diskettes, follow this procedure:

1 Insert the first diskette (if you have more than one software diskette).

2 From the **Start** menu, select **Run**.



3 Type **A:\setup.exe** in the Open box and click **OK**. (if your floppy drive is not **A**, substitute the correct letter.)

4 Follow the on-screen instructions to complete the installation.

chapter 3

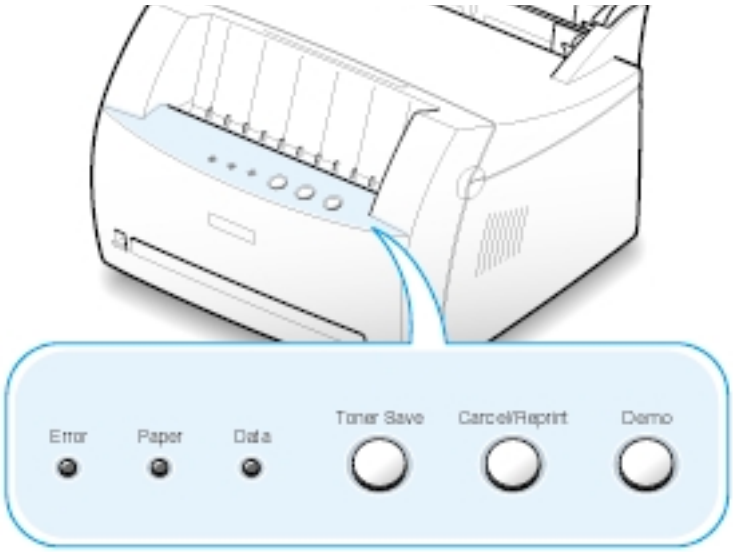
Using Control Panel

This chapter describes how to use the printer's control panel. It provides information on the following topics:

- Control Panel Buttons
- Control Panel Lights

Control Panel Buttons

The printer has three buttons: **Toner Save**, **Cancel/Reprint** and **Demo**.



Demo

Print demo page

Press and hold **Demo** for about 2 seconds until the control panel lights blink slowly to print a demo page. The printer must be in the Ready mode.

Start manual feeding

When you select **Manual Feeder** for **Paper Source** from your software application, you should press **Demo** each time you load a sheet of paper manually. For further information, see "Using the Manual Input Tray" on page 4.5.

Clean the inside of the printer

Press and hold **Demo** for about 10 seconds until the control panel lights remain lit. After cleaning the printer, one cleaning sheet prints. For further information, see page 6.5.

Cancel/Reprint

Cancel job

Press **Cancel/Reprint** and hold until the control panel lights blink to cancel a job the printer is currently printing. The **Error** light will blink while the print job is cleared from both the printer and the computer, and then the printer will return to the Ready mode. This may take some time, depending on the size of the print job.

Note: If the **Cancel/Reprint** button is accidentally pushed, the job must be reprinted. There is no undo function.

Reprint last page of the job

If you press **Cancel/Reprint** in the Ready mode, the printer prints the last page of the last print job. See page 5.21.

Toner Save

(on)

Toner Save

(off)

Turn the Toner Save Mode on/off

Press **Toner Save** to turn the Toner save mode on or off. The printer must be in the Ready mode.

- If the button backlight is on, toner save mode activates and the printer uses less toner to print a document.
- If the button backlight is off, toner save mode is disabled and you will print in normal quality.

To enable or disable the Toner Save mode using this button, the **Toner Save Mode** option in the printer driver must be set to **Printer Setting**.

For further information on the Toner Save mode, see page 5.6.

Control Panel Lights

The control panel lights indicate the status of your printer. If the **Error** light is on, the printer is experiencing an error. See "Troubleshooting Error Messages" on page 7.17.

Control Panel Light Message

Ready mode

The **Data** light is on and the printer is ready to print.

No action is needed. If you press and hold the **Demo** button for about 2 seconds, a demo page will print.

Processing

The printer is receiving or processing data. Wait for the job to print.

Pressing the **Cancel/Reprint** button cancels the current job. One or two pages may print as the printer clears the print job. The printer will return to the Ready mode after the job has been canceled.

Paper out

The printer is out of paper.

Load paper into the printer. For the automatic tray, there is no need to press any button to reset. For the manual tray, press the **Demo** button after loading.

Waiting for the Demo button to be pressed

In the Manual Feed mode, the printer is waiting for the **Demo** button to be pressed.
Press the **Demo** button to start printing. You must press the button to print each page after loading paper into the manual input tray.

chapter 4

Print Media

This chapter will help you to understand what kind of paper you can use with the Samsung ML-1250 printer and how to properly load paper in the different paper input trays for the best print quality.

Topics included in this chapter are:

♦ Choosing Paper and Other Media

♦ Selecting the Output Location

♦ Loading Paper

♦ Printing on Envelopes

♦ Printing on Heavy Paper

♦ Printing on Labels

♦ Printing on Transparencies

♦ Printing on Preprinted Paper

♦ Printing on Card Stock or Custom-sized Media

Choosing Paper and Other Media

You can print on a variety of print media, such as plain paper, envelopes, labels, transparencies, card stocks and so on. See "Paper Specification" on page A.2. To get the best possible print quality, use only high-quality copier-grade paper.

When you choose print media, consider the following:

- **Desired outcome**: The paper you choose should be appropriate for the project.
- **Size**: You can use any size paper that fits easily within the paper adjusters of the paper tray.
- **Weight** : Your printer supports paper weight as follows:
  - 16~24 lbs bond for the automatic input tray
  - 16~43 lbs bond for the manual input tray
- **Brightness**: Some papers are whiter than others and produce sharper, more vibrant images.
- **Surface smoothness**: The smoothness of the paper affects how crisp the printing looks on the paper.

Always test a sample of paper before purchasing large quantities.

CAUTION: Using media that does not conform to the specification listed in the paper specification can cause problems that may require service. This service is not covered by the warranty or service agreements.

Media Sizes and Capacities

Media Size	Input Source/Capacity*	
	Automatic Input Tray	Manual Input Tray
Plain Paper		
Letter (8.5 x 11 in.)	150	1
Legal (8.5 x 14 in.)	150	1
Executive (7.25 x 10.5 in.)	150	1
A4 (210 x 297 mm)	150	1
A5 (148 x 210 mm)	150	1
Folio (8.5 x 13 in.)	150	1
B5 (182 x 257 mm)	–	1
Envelopes		
No. 10 (4.12 x 9.5 in.)	5	1
DL (110 x 220 mm)	5	1
C5 (162 x 229 mm)	5	1
C6 (114 x 162 mm)	5	1
B5 (176 x 250 mm)	5	1
Monarch (3.87 x 7.5 in.)	5	1
Labels		
Letter (8.5 x 11 in.)	5	1
A4 (210 x 297 mm)	5	1
Transparency film		
Letter (8.5 x 11 in.)	5	1
A4 (210 x 297 mm)	5	1
Card stock	5	1
Bond Paper	5	1
Thin Paper (12 lb ~ 16 lb)	150	1
Thick Paper (24 lb ~ 43 lb)	5	1

* Depending on paper thickness, maximum capacity may be reduced.

Paper Guidelines

When selecting or loading paper, envelopes, or other special media, keep these guidelines in your mind:

- Attempting to print on damp, curled, wrinkled, or torn paper can **cause paper jams** and poor print quality.
- **Use** cut-sheet paper **only**. You cannot use multi-part paper.
- **Use only** high-quality, copier grade paper.
- **Do not** use paper that has been already printed on or that has been fed through a photocopier.
- **Do not** use paper with irregularities, such as tabs or staples.
- **Do not** attempt to load any tray during printing and never overfill the tray. This could cause a paper jam.
- **Avoid** paper with embossed lettering, perforations, or texture that is too smooth or too rough.
- Colored paper should be of the same high quality as white photocopy paper. The pigments must withstand the printer's fusing temperature of 400°F (205°C) for 0.1 second without deterioration. **Do not** use paper with a colored coating that was added after the paper was produced.
- Preprinted forms must be printed with nonflammable, heat-resistant inks that do not melt, vaporize, or release hazardous emissions when subjected to the printer's approximately 400°F (205°C) fusing temperature for 0.1 second.
- Store paper in its ream wrapper until ready to use. Place cartons on pallets or shelves, not on the floor.
- **Do not** place heavy objects on top of the paper, whether it is packaged or unpackaged.
- **Keep** paper away from moisture, direct sunlight or other conditions that can cause it to wrinkle or curl.

Selecting the Output Location

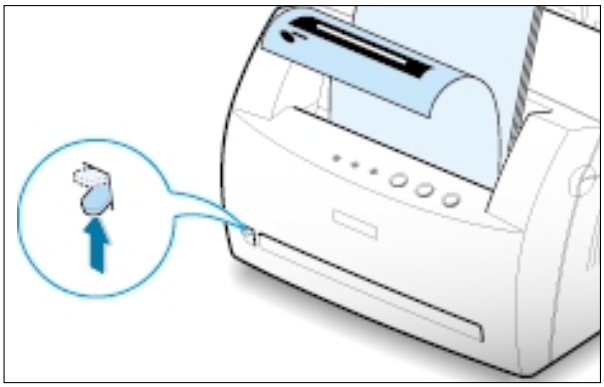
The printer has two output locations: the **face-up output slot** and the **face-down output tray**. You can select the output location by changing the position of the output lever on the front of the printer. To use the face-down output tray, be sure the output lever is in upper (normal) position. To use the face-up output slot, push it down to open the slot.

- If paper coming out of the face-down output tray has problems, such as excessive curl, **try printing to the face-up output slot**.
- To avoid paper jams, **do not change the position of the output lever** while the printer is printing.

Printing to the Face-Down Output Tray

The face-down output tray collects paper **face-down**, **in correct order**. Make sure that the output lever is in the upper position. (If not, push it up)

The face-down output tray should be used for most print jobs and is recommended for printing over 100 sheets of paper, continuously.

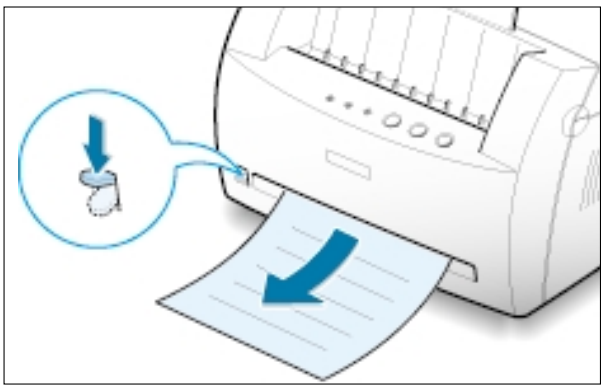


Printing to the Face-Up Output Slot

The printer prints to the face-up output slot if it is open. Push the output lever down to open the slot. Paper comes out of the printer **face-up**.

Using the face-up output slot might improve output quality with the following:

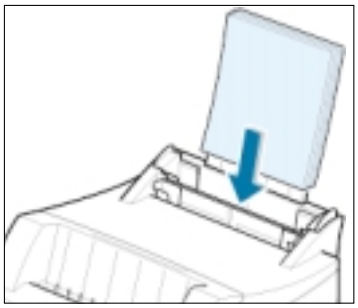
- envelopes
- labels
- paper heavier than 24 lb (90 g/m^2)



Loading Paper

Proper paper loading helps to prevent paper jams and ensure trouble-free printing. **Do not** remove paper from the tray(s) while a job is printing. Doing so may cause a paper jam.

Using the Automatic Input Tray



The automatic input tray holds 150 sheets of plain paper and 5 sheets of special media. See "Media Sizes and Capacities" on page 4.2 for acceptable paper size and capacities for each input tray.

Load a stack of paper into the automatic input tray and print. For details on loading paper in the automatic input tray, see "Load Paper" on page 2.4.

Note: Before using the automatic input tray, you must remove paper from the manual input tray.

Using the Manual Input Tray

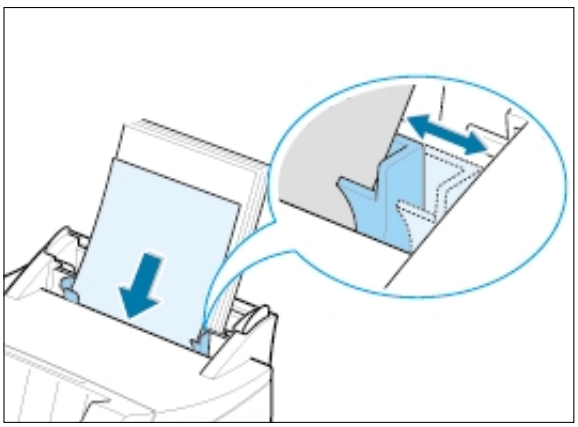
When you change the print settings, if you select **Manual Feeder** in the **Paper Source** option, you can manually load paper in the manual input tray. Manually loading paper can be helpful when you want to check the print quality after each page is printed.

If you experience a paper jam from the automatic input tray, load one sheet of paper at a time into the manual input tray.

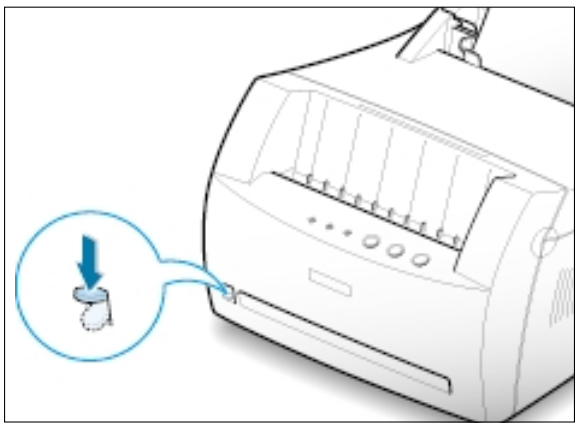
Note: To avoid a paper jam, use the manual tray with the automatic input tray loaded with paper.

1 Load the print media in the manual input tray **with the print side up**.

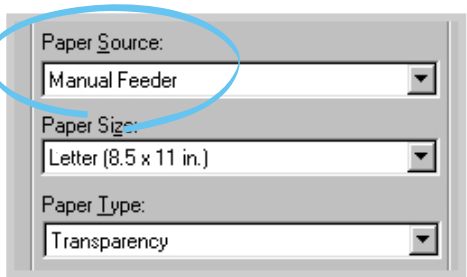
Adjust the paper guide against the stack of print media without bending.



2 Push the output lever down to open the face-up output slot.

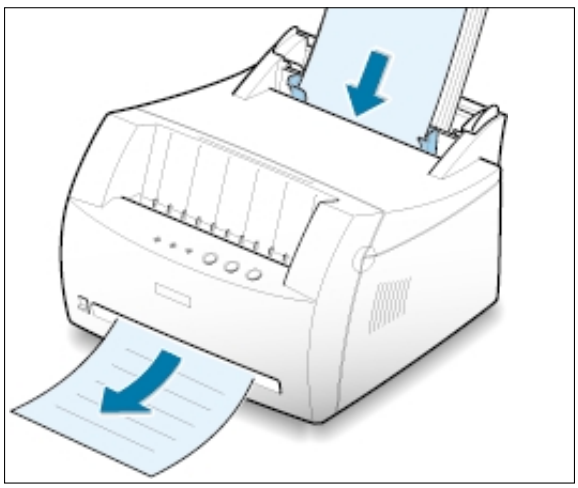


3 When you print a document, you must select **Manual Feeder** for **Paper Source** from the software application, and then select the correct paper size and type. For details, see page 5.3.



4 Print the document.

5 If you are printing multiple pages, load the next sheet after the first page prints out.



6 Press **Demo** to start feeding.

Notes:

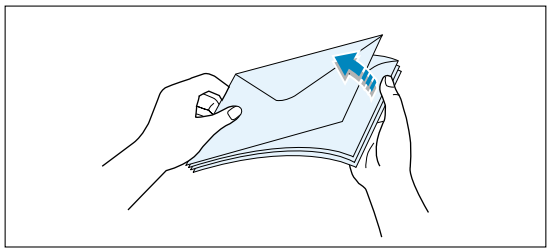
- The face-up output slot may not hold the printed pages properly.
- The printed pages will not stack in the face-down output tray unless you change output lever position. After you finish using the face-up output slot, you must change the position of the output lever to the normal position. Push it up.

Printing on Envelopes

Guidelines

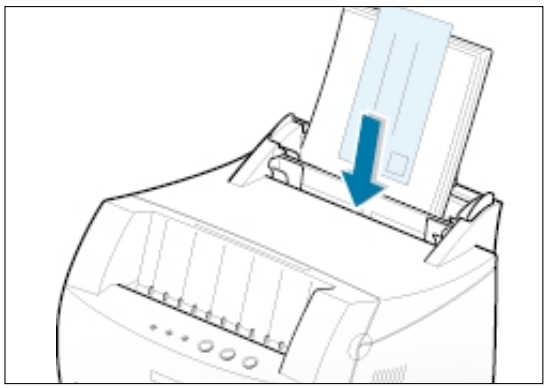
- Only use envelopes recommended for laser printers. Before you load envelopes in the input tray, make sure that they are undamaged and that they are not stuck together.
- Do not feed stamped envelopes.
- Never use envelopes with clasps, snaps, windows, coated lining, or self-stick adhesives. These envelopes may severely damage the printer.

1 Flex or fan the envelopes to prepare them for loading.

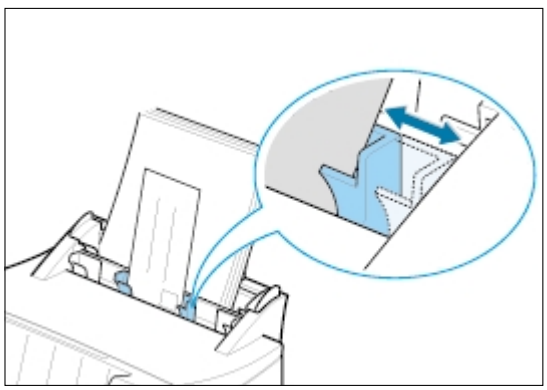


2 Load the envelopes into the input tray you want to use **with the flap side down**.

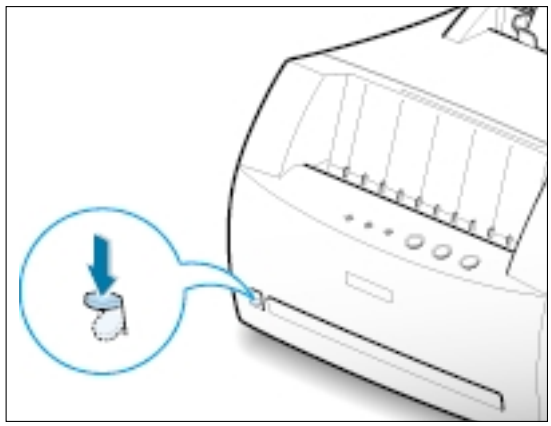
The stamp area is **on the right side** and the end of the envelope **with the stamp area enters the tray first**.



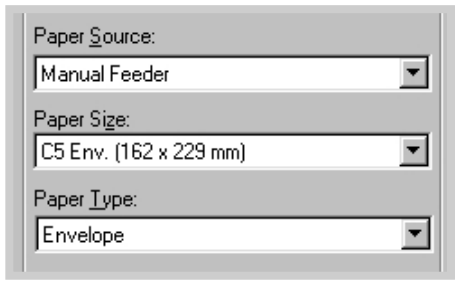
3 Adjust the guide to the edge of the envelope stack.



4 Push the output lever down.

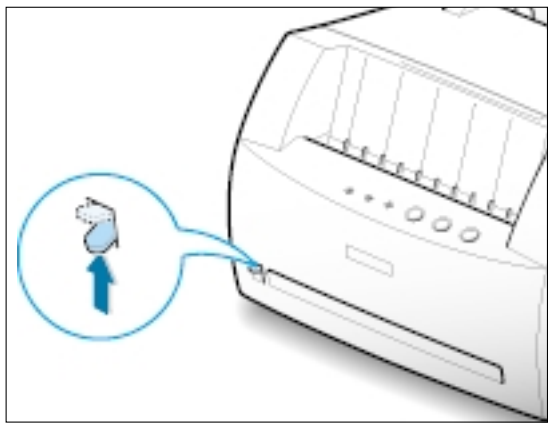


5 When you print on envelopes, configure the paper source, type and size properly in the software application. For details, see page 5.3.



6 Print the document.

7 After printing, push the output lever up.



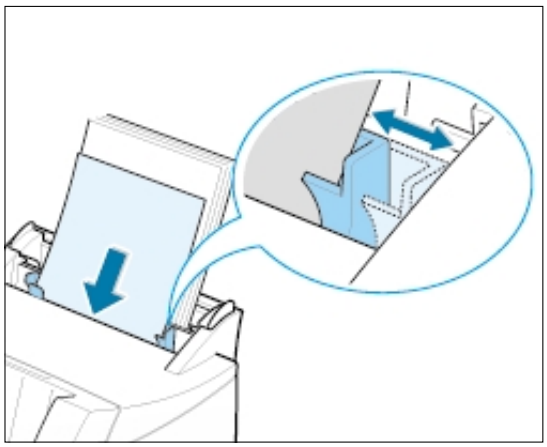
Printing on Heavy Paper

Guidelines

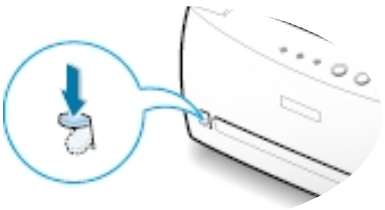
- Heavy paper is any paper heavier than 24 lb (90 g/m^2). For cotton papers, you can use 24 lb paper. The maximum paper weight available for your printer is 43 lb (163g/m^2).
- Do not use extremely heavy paper stock (greater than 43 lb, or 163 g/m^2 bond). Misfeeds, mis-stacking, media jams, poor toner fusing, poor print quality, and excessive mechanical wear can result.

1 Load paper in the input tray you want to use **with print side up**.

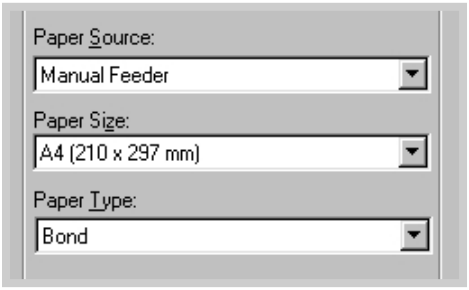
Adjust the guide to fit the width of the labels.



2 Push the output lever down.



3 When you print on heavy paper, select **Bond** in the Paper Type section, and then configure the paper source, and size in the software application. For details, see page 5.3.



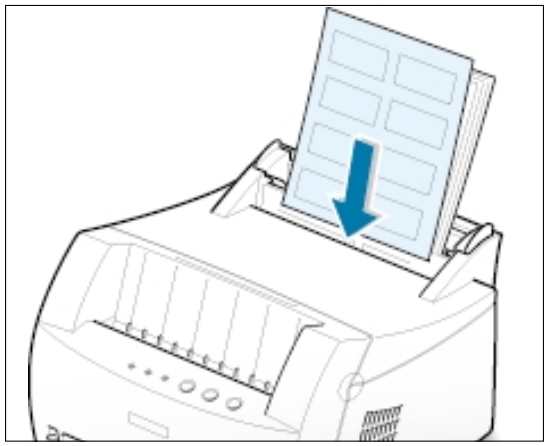
Printing on Labels

Guidelines

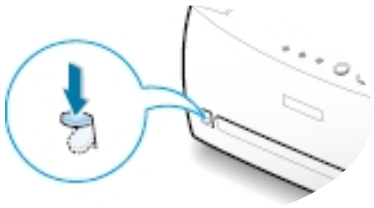
- Only use labels recommended for laser printers.
- Verify that the labels' adhesive material can tolerate fusing temperature of 200°C (392°F) for 0.1 second.
- Make sure that there is no exposed adhesive material between the labels. Exposed areas can cause labels to peel off during printing, which can cause paper jams. Exposed adhesive can also cause damage to printer components.
- Do not feed a sheet of labels through the printer more than once. The adhesive backing is designed for one pass through the printer.
- Do not use labels that are separating from the backing sheet or that are wrinkled, bubbled, or otherwise damaged.

1 Load labels in the input tray you want to use **with print side up**.

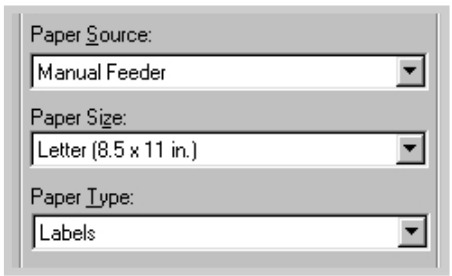
Adjust the guide to fit the width of the labels.



2 Push the output lever down.



3 When you print on labels, configure the paper source, type and size in the software application. For details, see page 5.3.



Note: To prevent them from sticking together, do not let the printed label sheets stack up as they are printed out.

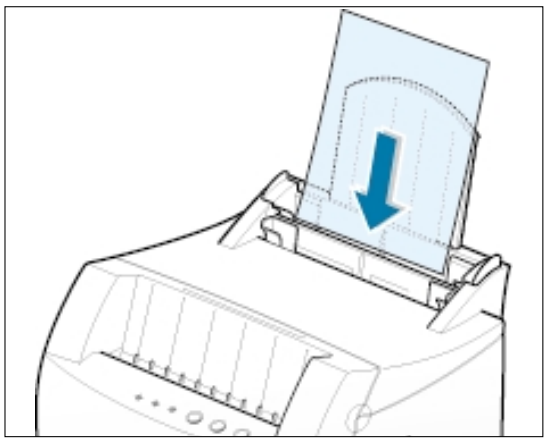
Printing on Transparencies

Guidelines

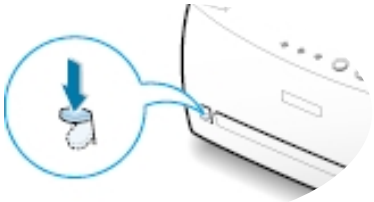
- Only use transparencies recommended for use in laser printers.
- Make sure that the transparencies are not wrinkled or curled, and that they do not have any torn edge.
- Hold the transparencies by the edges and avoid touching the print side. Oils from your fingers that are deposited on the transparency can cause print quality problems.
- Be careful not to scratch the printer side or leave fingerprints on it.

1 Load the transparencies in the desired input tray **with the print side up** and **the adhesive strip entering the printer first.**

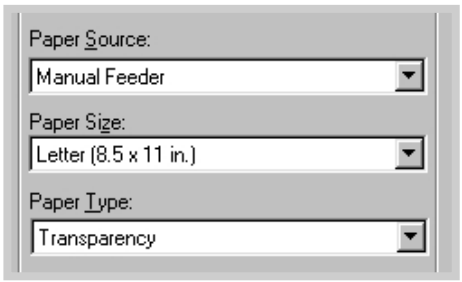
Adjust the guide to fit the width of the transparencies.



2 Push the output lever down.



3 When you print on transparencies, configure the paper source, type and size in the software application. For details, see page 5.3.



Notes:

- To prevent transparencies from sticking together, do not let the printed sheets stack up as they are printed out.
- Place transparencies on a flat surface after removing them from the printer.

Printing on Preprinted Paper

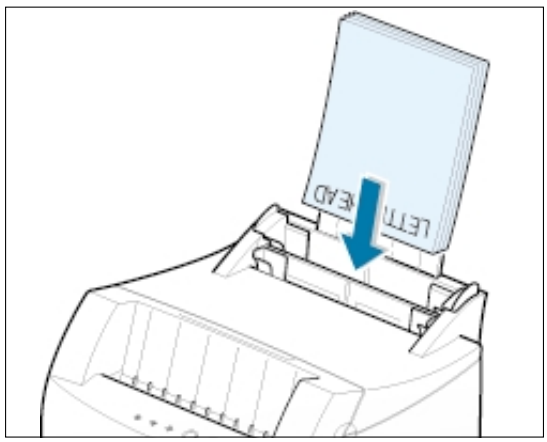
Preprinted paper is paper that has some type of printing placed on it before it is sent through the printer (paper that has a preprinted logo at the top of the page, for example).

Guidelines

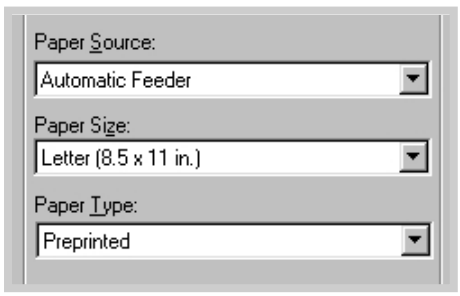
- Letterheads must be printed with heat-resistant ink that will not melt, vaporize, or release hazardous emissions when subjected to the printer's fusing temperature of 400°F (205°C) for 0.1 second.
- Ink on letterhead must be non-flammable and should not adversely affect any printer rollers.
- Forms and letterheads should be sealed in a moisture-proof wrapping to prevent changes during storage.
- Before you load preprinted paper such as forms and letterheads, verify that the ink on the paper is dry. During the fusing process, wet ink can come off preprinted paper.

1 Load letter-heads into the input tray you want to use **with the design face up, and the bottom edge toward the printer**.

Adjust the guide to fit the width of the paper stack.



2 When you print on the preprinted paper, configure the paper source, type and size in the software application. For details, see page 5.3.



Printing on Card Stock or Custom-sized Media

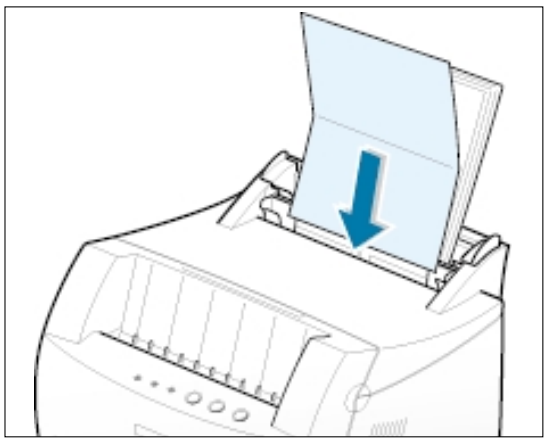
Postcards, 3 by 5 in.(index) cards and other custom-sized media can be printed with the ML-1250 printer.

Guidelines

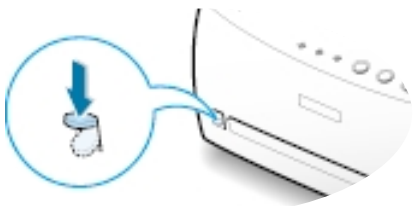
- Always insert the short edge into the input tray first. If you want to print in landscape mode, make this selection through your software. Inserting paper long-edge first may cause a paper jam.
- Do not print on card stocks that is too small or too large. The minimum size is 76 by 127 mm (3 by 5 in.) for the manual input tray and 95 by 127 mm (3.8 by 5 in.) for the automatic input tray, and the maximum size is 216 by 356 mm (8.5 by 14 in.).
- Set margins at least 6.4 mm (0.25 in.) away from the edges of the media in the software application.

1 Load print media in the input tray you want to use **with the print side up**, **and the short edge first** .

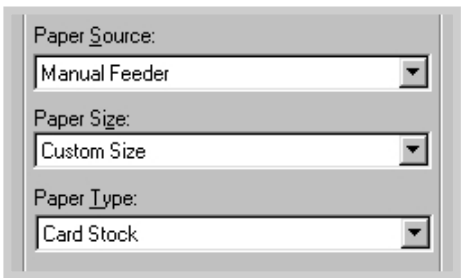
Adjust the guide to fit the width of the media.



2 Push the output lever down.



3 Configure the paper source, type in the printer driver's properties (see page 5.3) and print.



Note: If the size of your print media is not listed in the **Paper Size** box in the **Paper** tab of the printer driver properties, select **Custom Size** and set the paper size manually.

chapter 5

Printing Tasks

This chapter explains your printing options and gives common printing tasks.

Topics included in this chapter are:

- Printing a Document
- Using Toner Save Mode
- Printing Multiple Pages on One Sheet of Paper (N-Up Printing)
- Fitting Your Document to a Selected Paper Size
- Printing Posters
- Setting Graphic Properties
- Printing Watermarks
- Using Page Overlay
- Reprinting the Last Page
- Printing on a Network Environment

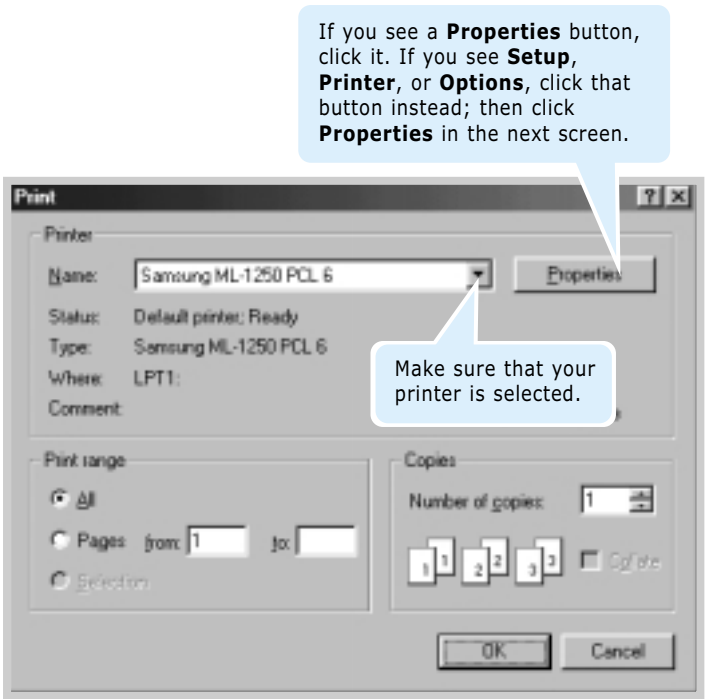
Printing a Document

The following procedure describes the steps required for printing from various Windows applications. The exact steps for printing a document may vary depending on the application program. Refer to your software application's documentation for the exact printing procedure.

1 Open the document you want to print.

2 Select **Print** from the **File** menu. The Print dialog box for your application will be displayed (the Print dialog box for your application may look slightly different).

The basic print settings you require are usually selected within this Print dialog box. These settings include the number of copies, paper size, and page orientation.



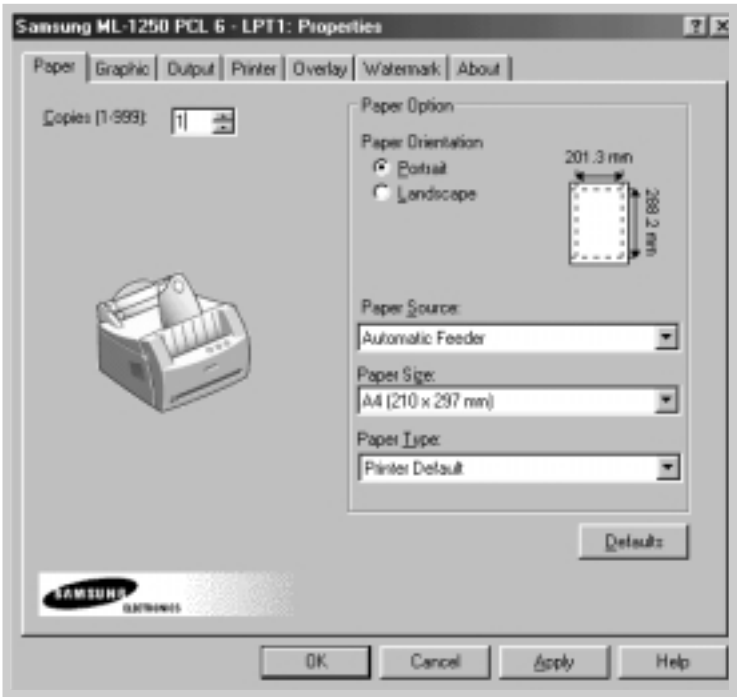
5

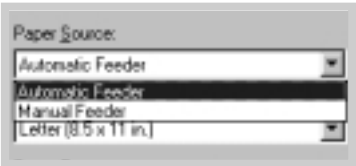
3 To take advantage of the printer features provided by your ML-1250 printer, click **Properties** in the application's Print dialog box and go to step 4.

If you see **Setup**, **Printer**, or **Options**, click that button instead. Then click **Properties** in the next screen.

4 The Samsung ML-1250 PCL 6 Properties dialog box allows you to access and change printer settings.

If necessary, click the **Paper** tab to display the settings shown below. The **Paper** tab allows you to access and change the settings for basic paper handling.

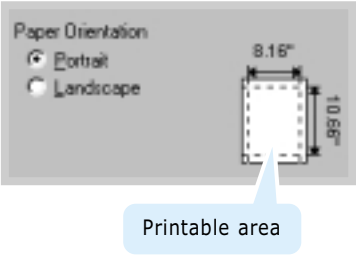




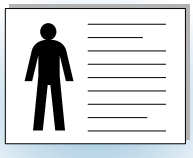
Select **Automatic Feeder** from the **Paper Source** options box unless you are printing with special media. To print with special media, select **Manual Feeder** and feed one sheet at a time into the printer. See page 4.5.

Select **Plain Paper** from the **Paper Type** options box unless you want to use a different kind of print media. To use a different kind of media, select the corresponding print media name in the **Paper Type** options box. For more information, please refer to Chapter 4 'Print Media'.

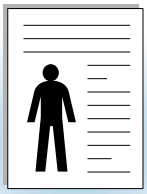
Select the paper size you have loaded in your printer.



The **Paper Orientation** option allows you to select the direction in which information is printed on a page. **Portrait** prints across the width of the page, letter style. **Landscape** prints across the length of the page, spreadsheet style.



Landscape



Portrait

You can also see the printable area.

5 Click the other tabs on the top of the Properties dialog box to access other features, if needed.

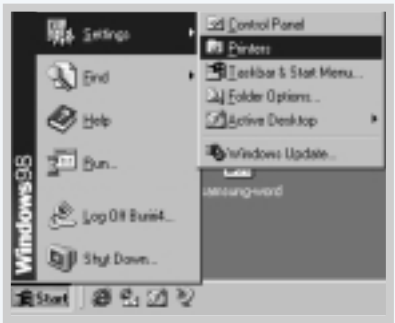
6 When you complete the print settings, click **OK** until the Print dialog box is displayed.

7 Click **OK** to start printing.

Notes:

- Most Windows applications will override settings you specify in the printer driver. Change all print settings available in the software application first, and then any remaining settings using the printer driver.
- The settings you change remain in effect only while you are using the current program. **To make your changes permanent**, make them in the Printers folder as follows:

1. Click the Windows **Start** button.
2. Select **Settings**, and then **Printers** to open the Printers window.



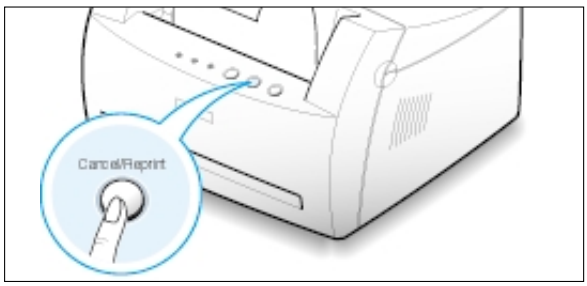
3. Select the **Samsung ML-1250 PCL 6** printer icon.
4. Click the right mouse button and select **Properties** to open the properties window.

Canceling a Print Job

There are two ways to cancel a print job.

To stop a print job from your printer

Press the **Cancel/Reprint** and hold until the control panel light blink to cancel job the printer is currently printing.



The printer will finish printing the page that is moving through the printer and delete the rest of the print job while the **Error** light is blinking. Pressing **Cancel/Reprint** cancels only the current job in the printer. If more than one print job is in printer memory, **Cancel/Reprint** must be pressed once for each job.

To stop a print job from the Printers folder

1. From the **Start** menu, select **Settings**.
2. Select **Printers** to open the Printers window, then double-click the **Samsung ML-1250 PCL 6** icon.
3. From the **Document** menu, select **Cancel Printing** (Windows 9x) or **Cancel** (Windows Me/NT 4.0/2000).

5

Using Help

The Samsung ML-1250 printer has a help screen that can be activated by the **Help** button in the printer's properties dialog box. You can also click [?] from the upper right hand corner, and then click on any setting.

These help screens give detailed information about the printer features provided by the Samsung ML-1250 printer driver.

To restore the default printer properties setting when you change the print settings, click **Defaults** in the Samsung ML-1250 PCL 6 Properties dialog box.

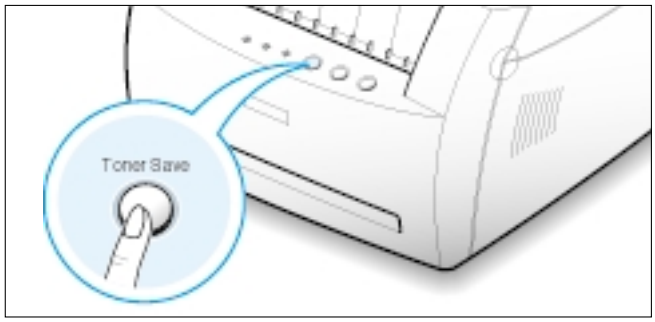
Using Toner Save Mode

Toner Save mode allows the printer to use less toner on each page. Selecting this option will extend the life of your toner cartridge and reduce your cost per page, but will reduce print quality.

There are two ways to enable the Toner Save mode.

To enable this feature from your printer

Press the **Toner Save** button on the control panel. The printer must be in Ready mode (**Data** light is on).



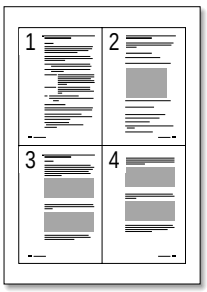
- If the button backlight is on, toner save mode activates and the printer uses less toner to print a page.
- If the button backlight is off, toner save mode is disabled and the printer prints in a normal mode.

Note: To enable or disable the Toner Save mode from the control panel, the **Toner Save Mode** option in the printer driver must be set to **Printer Setting**. See below.

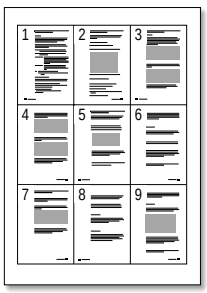
To enable this feature from the software application

1. When you change the print settings from your software application, access the printer properties. See page 5.1 to access the printer properties.
2. Click the **Graphic** tab, and then select the **Toner Save Mode** option. You can select from:
   - **Printer Setting**: If you select this option, this feature is determined by the setting you've made on the control panel of the printer.
   - **Standard**: If you don't need to save toner to print a document, select this option.
   - **Save**: Select this option to allow the printer to use less toner on each page.
3. Click **OK**.

Printing Multiple Pages on One Sheet of Paper (N-Up Printing)



▲ 4 pages per sheet



▲ 9 pages per sheet

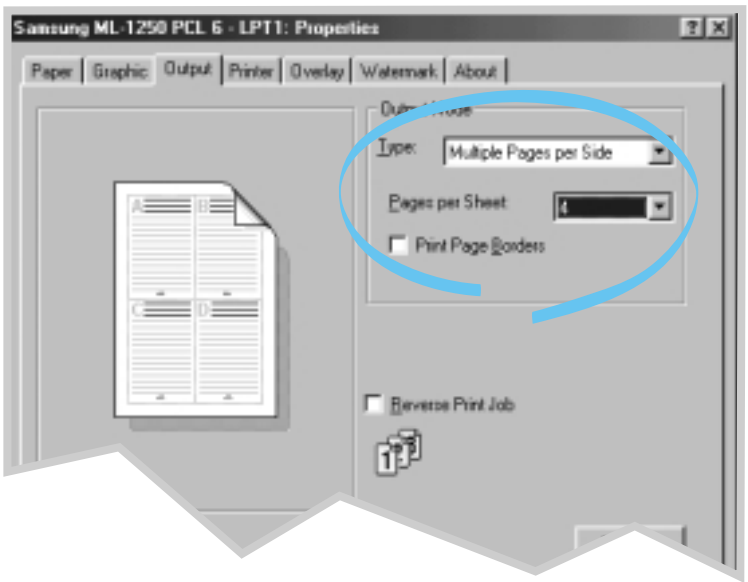
You can select the number of pages you want to print on a single sheet of paper. If you choose to print more than one page per sheet, the pages will appear decreased in size and arranged on the sheet. You can specify up to 16 pages.

1 When you change the print settings from your software application, access the printer properties. See page 5.1 to access the printer properties.

From the **Paper** tab, select the paper orientation, source, size and type.

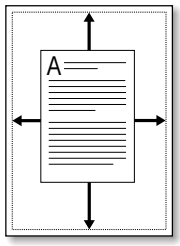
2 Click the **Output** tab, and choose **Multiple Pages per Side** in the **Type** drop-down list. Then select the number of pages you want to print per sheet (1, 2, 4, 6, 9 or 16) in the **Pages per Sheet** drop-down list.

3 Click **Print Page Borders** if you want to print a border around each page on the sheet. **Print Page Borders** is enabled only if **Pages per Sheet** is 2, 4, 6, 9, or 16.



4 Click **OK**, then start printing.

Fitting Your Document To a Selected Paper Size

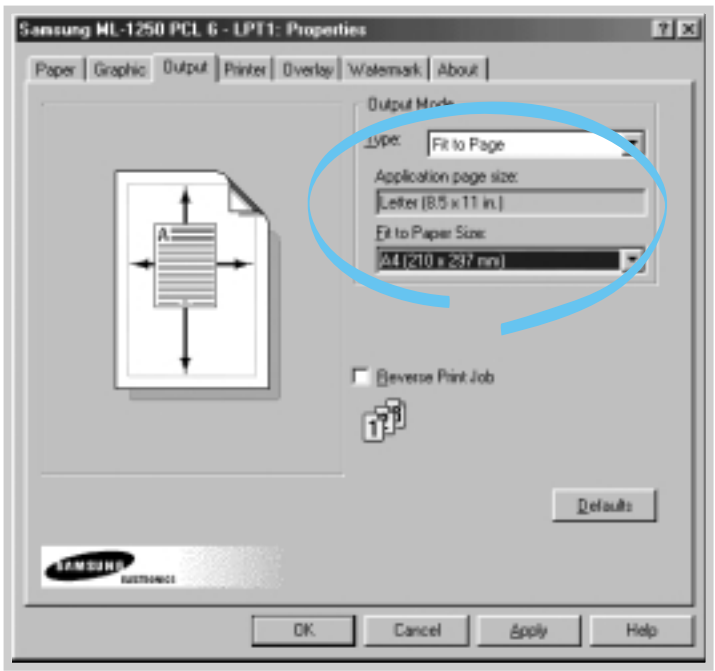


This printer feature allows you to scale your print job to any selected paper size regardless of the digital document size. This can be useful when you want to check fine details on a small document.

1 When you change the print settings from your software application, access the printer properties. See page 5.1 to access the printer properties.

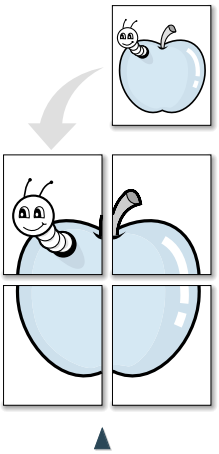
2 Click the **Output** tab, and select **Fit to Page** in the **Type** drop-down list.

3 You'll see the **Application page size** and be prompted to select the **Fit to Paper Size**. Select the correct size from the drop-down list.



4 Click **OK**, then start printing.

Printing Posters



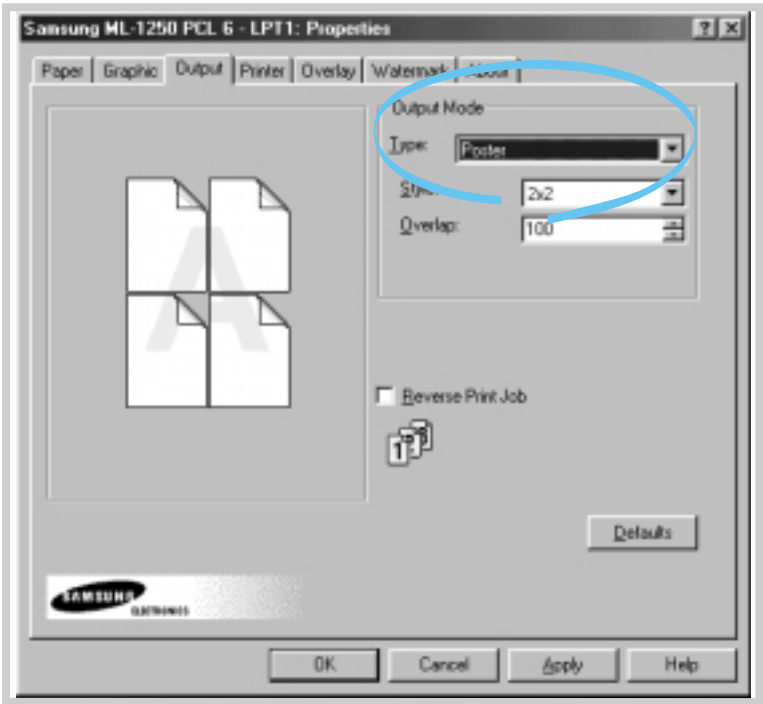
Poster printing
with 2x2 style

This feature allows you to print a single-page document onto 4, 9, or 16 sheets of paper, which can be pasted together to form one poster-size document.

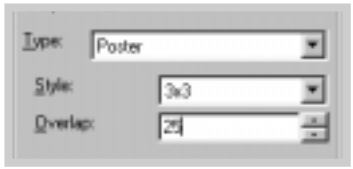
1 When you change the print settings from your software application, access the printer properties. See page 5.1 to access the printer properties.

From the **Paper** tab, select the paper orientation, source, size and type.

2 Click the **Output** tab, and select **Poster** in the **Type** drop-down list.



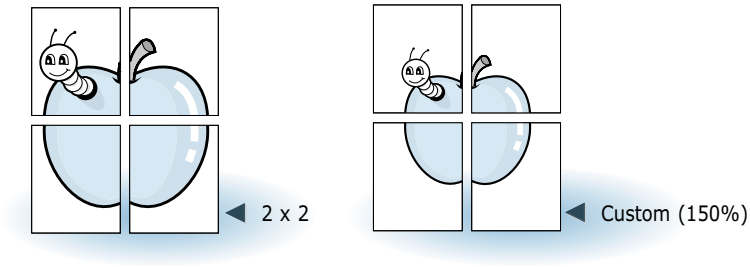
5



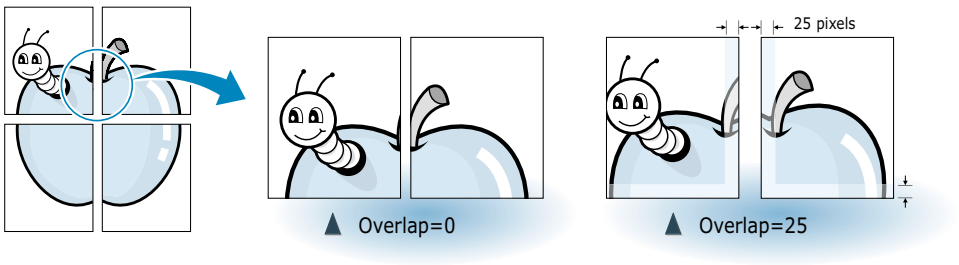
3 To determine the scaling factor, select the **Style**; **2x2**, **3x3**, **4x4**, or **Custom**.

For example, if you select **2x2**, the output will be automatically stretched to cover 4 physical pages.

If you select **Custom**, you can adjust the scaling factor manually. For example, if you specify 150%, the image will be printed across 4 pages with 150% scaled.



4 You may specify an overlap in pixel to make it easier to reconstruct the resulting poster.

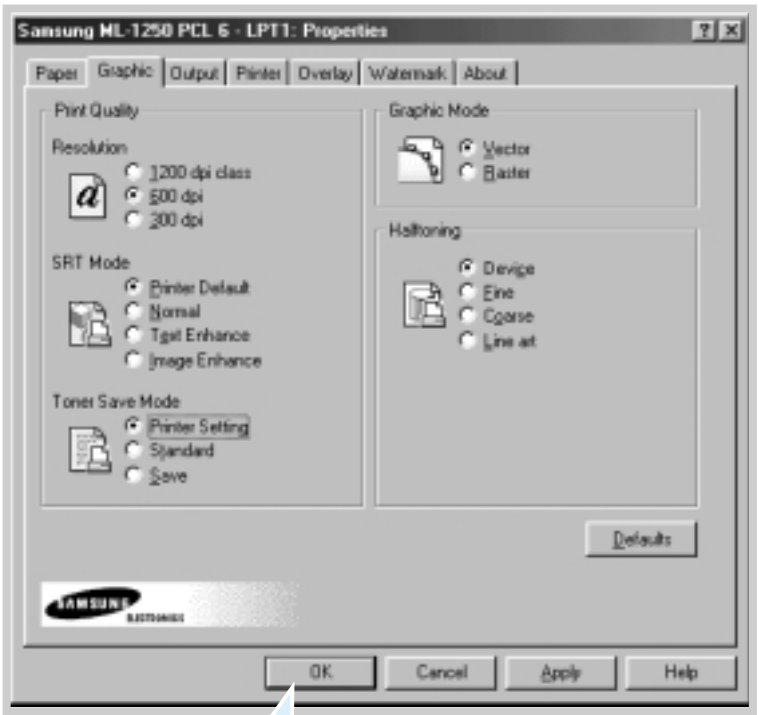


5 Click **OK**, then start printing.

Setting Graphic Properties

Use the following options to adjust the print quality for your specific printing needs when you access the printer properties. See page 5.1 to access the printer properties.

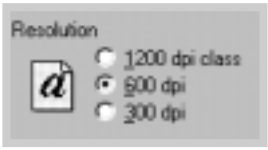
If necessary, click the **Option** tab to display the settings shown below.



Click here to save the changes when setting is done.

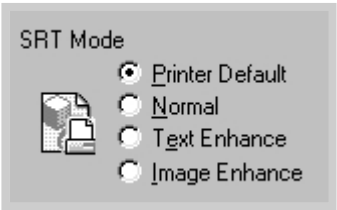
5

Resolution



You can select the printing resolution; **1200 dpi class**, **600 dpi** or **300 dpi**. The higher the setting, the sharper the clarity of printed characters and graphics. Higher settings may increase the time it takes to print a document.

SRT Mode

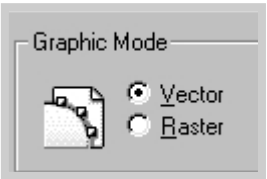


Some printed characters or images appear to have jagged or uneven edges. Set this Samsung Resolution enhancement Technology (SRT) option to improve the print quality of your text and image and make the characters and images appear smoother.

Note: When **600 dpi** is selected in the Resolution section, selecting **Text Enhance** or **Image Enhance** gives you an image quality of 1200 dpi class .

- **Printer Default** - This is determined by the setting on the printer.
- **Normal** - SRT mode is disabled. Choose this setting if graphics, particularly scanned images, are not printing clearly.
- **Text Enhance** - This setting refines the print quality of characters by smoothing out jagged edges that can occur on the angles and curves of each character.
- **Image Enhance** - This setting refines the print quality of a photo image using SRT.

Graphic Mode



Configure the printer to process graphics as raster or vector images. Setting this option tells Windows how to send graphic images to the printer. All graphics can be printed as raster images, however some geometric shapes or patterns print faster if they are printed as vector graphics.

- **Vector** – The Vector mode represents a graphic as point, lines and other geometric entities. If you select the **Vector** setting, Windows will send graphics to the printer as a mixture of vector and raster images.
- **Raster** – The Raster mode represents a graphic as a mix of dots. When you select the **Raster** setting, Windows will send all graphics to the printer as bit map raster images.

Note: Not all graphic images can print using the **Vector** setting. If you are using the **Vector** setting, and your graphic images do not print as they appear on your computer screen, select the **Raster** setting and reprint your graphic.

Halftoning

This option can be used for configuring the halftone of the printed illustration. The best way to choose a Halftoning setting for your graphic image is to experiment. Print a graphic image at each setting and choose the one you like best.

- **Device** - Choose this setting to allow the printer to determine a halftoning setting.
- **Fine** - Choose this setting when you want printed images to have a smooth, realistic, and photographic appearance. This setting provides soft contrasts between various shades of gray. This setting also works well for images originally designed with color.
- **Coarse** - Choose this setting if your graphic images were originally scanned in through a scanner.
- **Line art** - Choose this setting for graphic images with intricate lines and fine detail, like clip art graphics. This setting provides solid lines and sharp contrasts between shaded areas.

What is Halftone?

Gray-scale objects (such as photographs) whose gray dots have been converted to a pattern of groups of black dots. These groups, which are of various sizes, along with the white dots (pixels turned off), create illusions of gray shading: larger groups make the image appear black or dark gray, while smaller groups make the image appear light gray.

Printing Watermarks

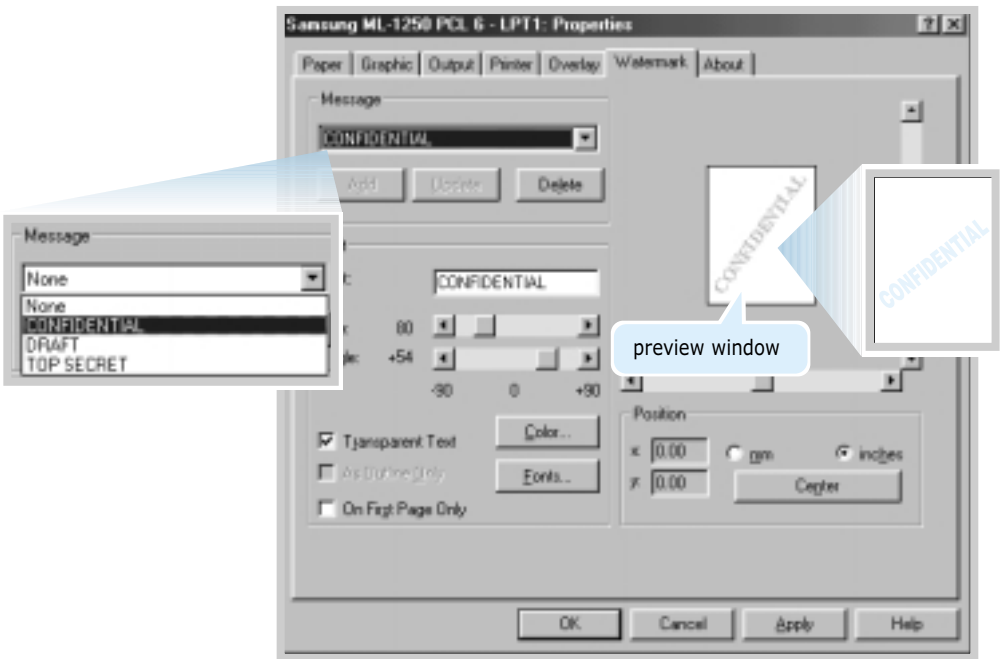
The Watermark option allows you to print text over an existing document. For example, you may want to have large gray letters reading "Draft" or "Confidential" printed diagonally across the first page or all pages of a document.

There are several predefined watermarks that come with the ML-1250 printer, and they can be modified or you can add new ones to the list.

To use an existing watermark

1 When you change the print settings from your software application, access the printer properties. See page 5.1 to access the printer properties.

2 Click the **Watermark** tab, and select the desired watermark in the **Message** drop-down list. You will see the selected watermark in the preview window.



3 Click **OK**, then start printing.

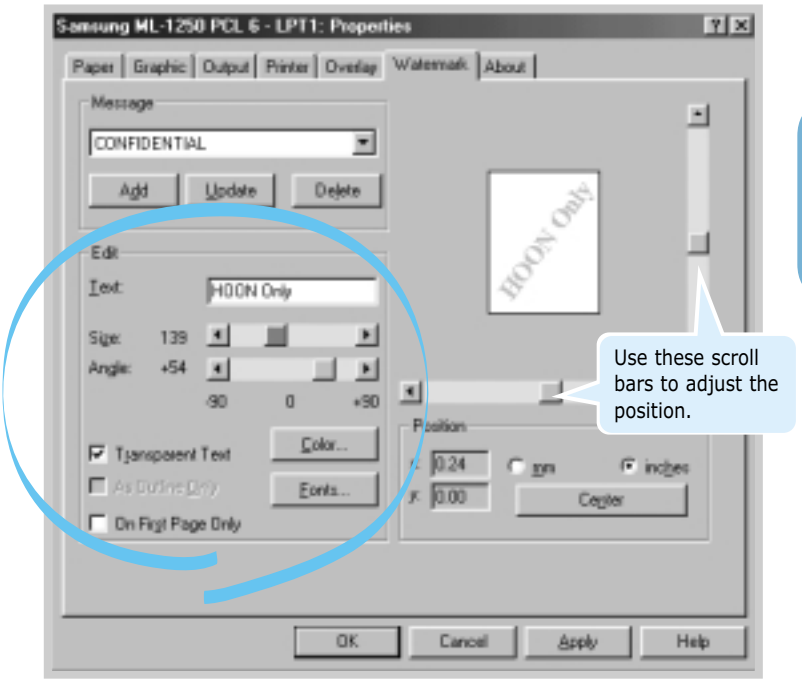
To create or edit a watermark

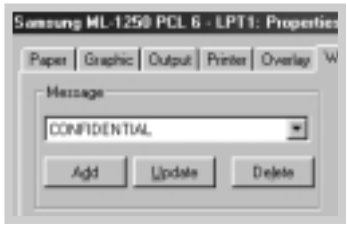
1 When you change the print settings from your software application, access the printer properties. See page 5.1 to access the printer properties.

2 Click the **Watermark** tab, and enter the desired text message in the **Text** field. This will be displayed in the preview window. The preview window is provided so that you can see how the watermark will appear on the printed page.

3 Select the desired watermark options. You can select the font type and size, color and angle. There are three checkboxes at the bottom of the dialog box:

- **Transparent Text** – Allows the document to show through the watermark.
- **As Outline Only** – Prints the text outline of the watermark. This setting globally effects all watermarks in the list.
- **On First Page Only** – Prints the watermark only on the first page.





4 If you have created a new or edited an existing watermark, the **Add** and **Update** button is enabled.

To add a new watermark to the list, click **Add**.

5 If you want to edit, select the desired watermark from the list, edit, and then click **Update**.

6 When you complete the edit, click **OK**, and then start printing.

To stop printing the watermark, select **None** in the Message drop-down list.

To delete a watermark

1 When you change the print settings from your software application, access the printer properties. See page 5.1 to access the printer properties.

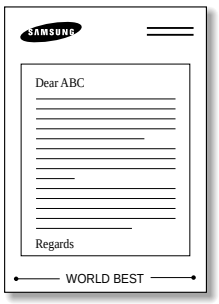
2 From the **Watermark** tab, select the watermark you want to delete in the **Message** drop-down list.

3 Click **Delete**.

4 Click **OK**.

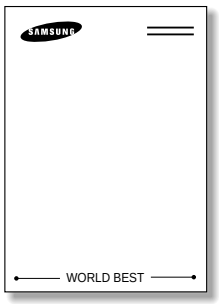
Using Page Overlay

What is an Overlay?



An overlay is text and/or images stored in the computer HDD as a special file format that can be printed on any document you choose. Overlays are often used to take the place of preprinted forms and letterhead paper. Rather than using preprinted letterhead, for example, you can create an overlay containing the exact same information that is currently on your letterhead. Then when you want to print a letter with your company's letterhead, you do not need to load preprinted letterhead paper in the printer. You need only tell the printer to print the letterhead overlay on your document.

Creating a New Page Overlay

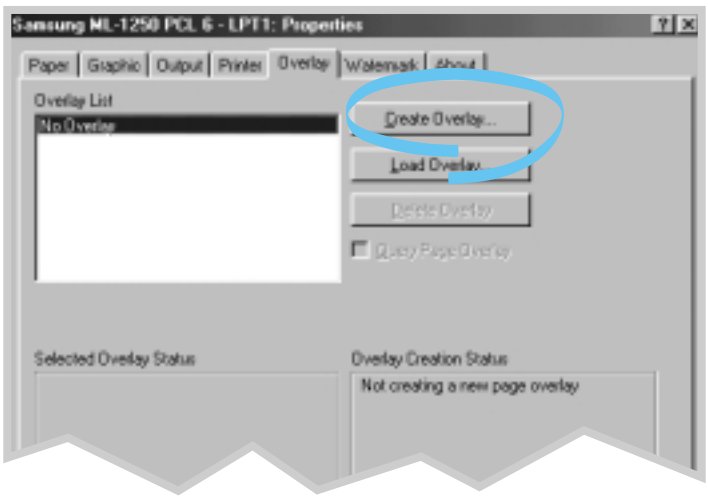


To use a page overlay, you must create a new page overlay containing your logo or image.

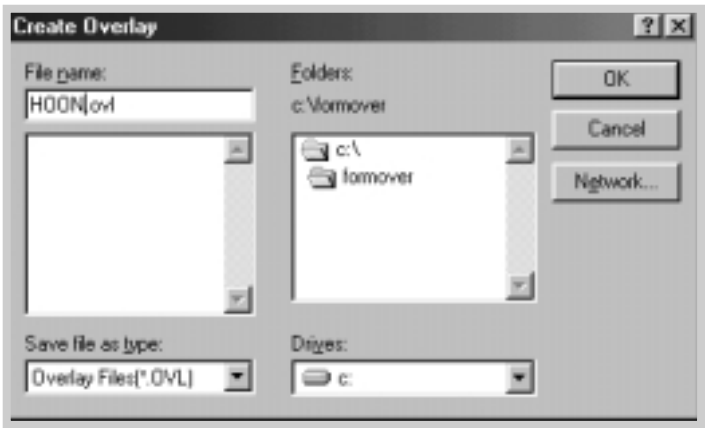
1. Create or open a document containing a text or image you want to use for page overlay. Position the items exactly as you wish them to appear when printed as an overlay. If needed, save the file for later use.

2. Select **Print** from the **File** menu. Then click **Properties** in the application's Print dialog box to access the printer properties. For details, see page 5.1.

3. Click the **Overlays** tab, and click **Create Overlay**.



4 In the Create Overlay dialog box, type a name of up to eight characters in the **File name** box. Select the destination path if necessary. (The default is C:\FORMOVER).



5 Click **OK**. You will see the name in the **Overlay List** box.

6 Click **OK** or **Yes** until you complete the creation.

The file is not printed out. Instead it will be stored on your computer HDD disk.

Note: The overlay document size must be the same as documents you will print with the overlay.

Using Page Overlay

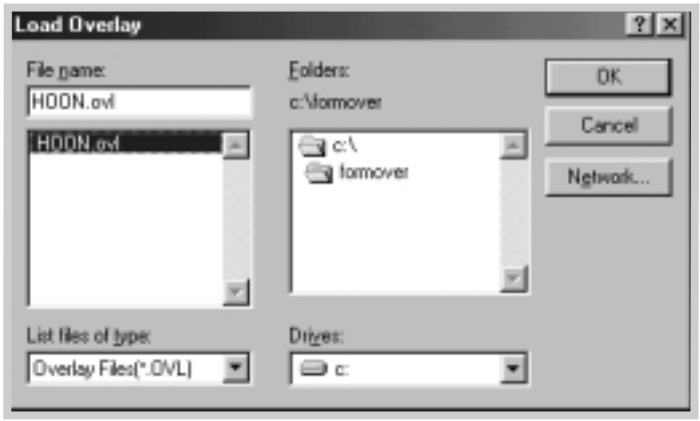
After an overlay has been created, it is ready to be printed with your document. To print an overlay with a document:

1 Create or open the document you want to print.

2 When you change the print settings from your software application, access the printer properties. See page 5.1 to access the printer properties.

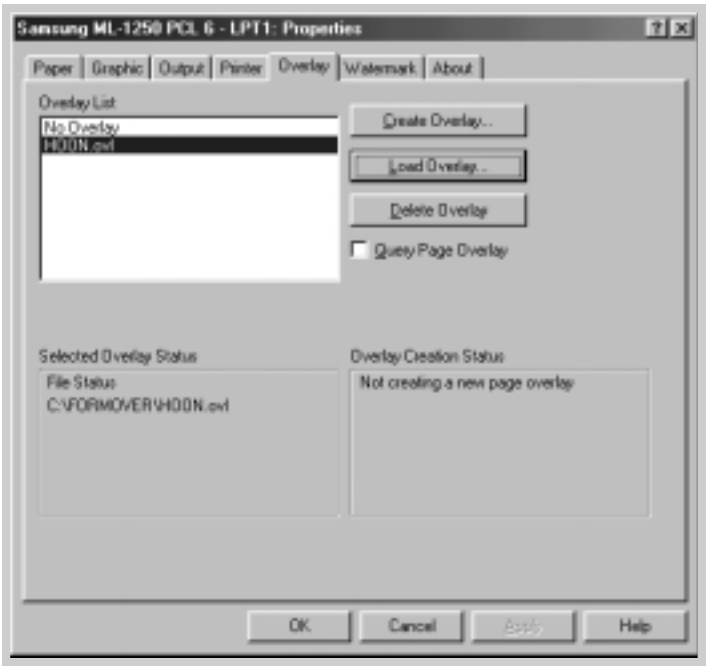
3 Click the **Overlays** tab, and select the desired overlay from the **Overlay List** box.

4 If the desired overlay file does not appear in the **Overlay List** box, click **Load Overlay**, and select the overlay file.



If you have stored the overlay file you want to use into an external source, you can also load the file when you access this Load Overlay window.

After you select the file, click **OK**. The file is now shown in the **Overlay List** box and is available for printing. Select the overlay from the **Overlay List** box.



5 If necessary, click **Query Page Overlay**. If this box is checked, a message box will appear each time you submit a document for printing, asking you to confirm your wish to print an overlay on your document.

Answering **Yes** to the message box means that the selected overlay will be printed with your document.
Answering **No** to the message box cancels overlay printing.

If this box is empty, and an overlay has been selected, the overlay will be automatically printed with your document.

6 Click **OK** or **Yes** until the printing starts.

The selected overlay will be downloaded with your print job and printed on your document.

Deleting a Page Overlay

You can delete page overlays that are no longer used.

1 In the printer properties dialog box, click the **Overlays** tab.

2 Select the overlay you want to delete from the **Overlay List** box.

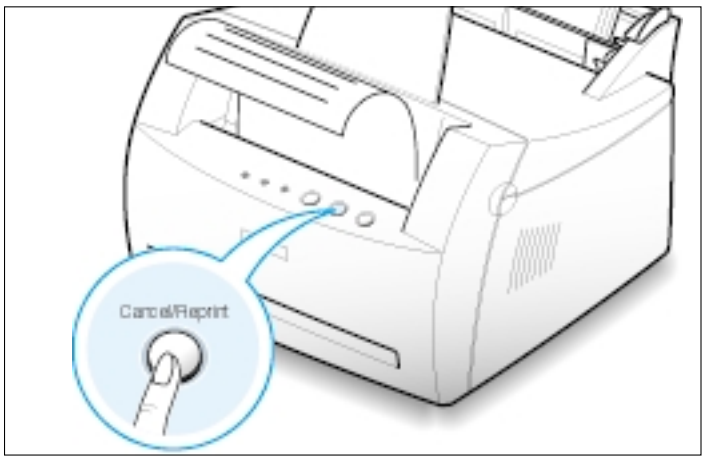
3 Click **Delete Overlay**.

4 Click **OK** until you exit the Print dialog box.

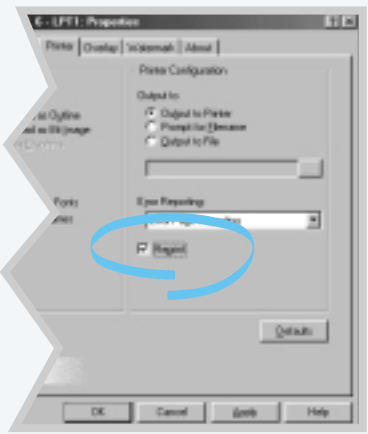
Reprinting the Last Page

The Samsung ML-1250 printer's memory always keeps the last page of the last job. If you canceled a print job due to a paper jam or other problems and you want to know which page was printed last, reprint the last page.

Press **Cancel/Reprint** briefly in Ready mode.



Note: If you want to prevent somebody from reprinting your document, you can turn the Reprinting feature off in the printer's properties dialog box. When you turn the feature off in the printer's properties, the **Cancel/Reprint** button on the control panel does not perform the reprinting operation.



To disable this feature:

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Click the right mouse button on the **Samsung ML-1250 PCL 6** printer icon and select **Properties** to open the properties window.
3. From the **Printer** tab, click **Reprint** to empty the checkbox.

   With the box empty, you cannot reprint the last page from the control panel.

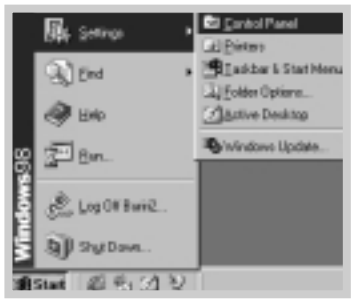
   When you want to reprint the last page on the control panel, you must put a check mark on this check box.
4. Click **OK**.

Printing on a Network Environment

If you work in a network environment, you can connect your ML-1250 printer directly to a selected computer (called the "host computer") on the network. The printer can then be shared by other users on the network through a Windows 9x, Me, NT 4.0 or 2000 network printer connection.

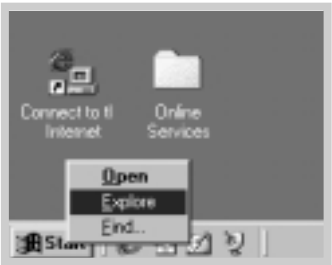
Note: You need to install the Samsung ML-1250 printer driver on each computer that will print documents to the printer.

Setting Up Host Computer



1. Start Windows.
2. From the **Start** menu, select **Control Panel**, and double-click on the **Network** icon.
3. Check the **File and Print Sharing** box, then click **OK**. Close the window.
4. Click **Start** and select **Printers** from **Settings**, then double-click your printer name.
5. Select **Properties** in the **Printers** menu.
6. Click the **Sharing** tab, then check the **Shared As** box. Fill in the Shared Name field, then click **OK**.

Setting Up Client PC



1. Right-click **Start**, and select **Explorer.**
2. Open your network folder in the left column.
3. Right-click the shared name, and select **Capture Printer Port**.
4. Select the port you want, check the **Reconnect at log on** box, then click **OK**.
5. From the **Start** menu, select **Settings**, then **Printers**.
6. Double-click your printer icon.
7. From the **Printers** menu, select **Properties.**
8. Press the **Details** tab, select the printer port, then click **OK**.

chapter 6

Maintaining Your Printer

This chapter provides suggestions for high-quality and economical printing and information for maintaining the toner cartridge and the printer.

Topics included in this chapter are:

- ♦ Maintaining Toner Cartridge
- ♦ Cleaning the Printer

Maintaining Toner Cartridge

Toner cartridge storage

To get the most from the toner cartridge, keep the following guidelines in your mind.

- Do not remove the toner cartridge from its package until you are ready to use it.
- Do not refill toner cartridges. **The printer warranty does not cover damage caused by using a refilled cartridge.**
- Store toner cartridges in the same environment as the printer.
- Do not remove a toner cartridge from the printer except to replace it, clean it or clear a paper jam. Replace the cartridge immediately.
- To prevent damage to the toner cartridge, do not expose it to light for more than a few minutes.

Toner cartridge life expectancy

The life of the toner cartridge depends on the amount of toner that print jobs require. When printing text at 5 % coverage, a new toner cartridge lasts an average of 2,500 pages. (But, the toner cartridge supplied with the printer lasts an average of 1,000 pages.)

Recycling toner cartridge

After you install a new toner cartridge (see page 2.2), follow the instructions included in the toner cartridge box to recycle the old cartridge.

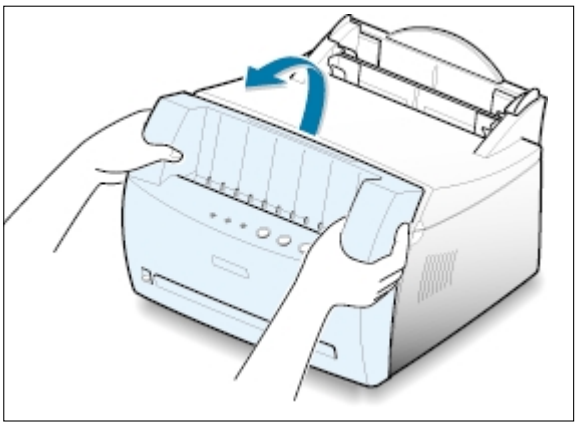
Saving toner

To save toner, press the **Toner Save** button on the printer control panel. The button will be lit. You can also enable the **Toner Save Mode** in your printer properties. Refer to "Using Toner Save Mode" on page 5.6. Selecting this option will extend the life of the toner cartridge and reduce your cost per page, but will reduce print quality.

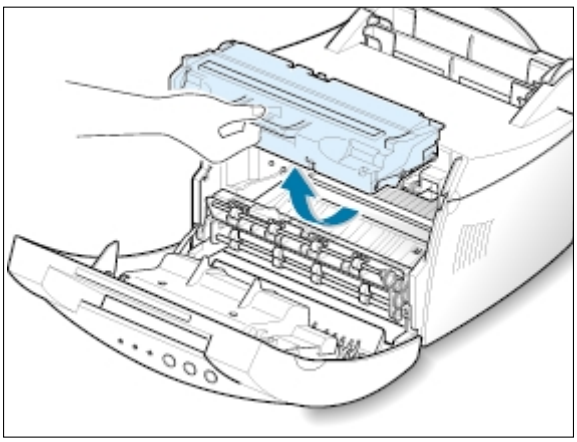
Redistributing Toner

When toner is low, faded or light areas may appear on a printed page. You may be able to temporarily improve print quality by redistributing the toner. The following procedures may allow you to finish the current print job before replacing the toner cartridge.

1 Grasp the front cover by both sides of the cover and pull it toward you to open.



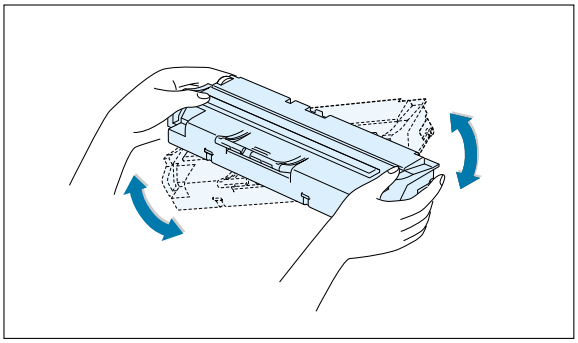
2 Remove the toner cartridge from the printer.



CAUTIONS:

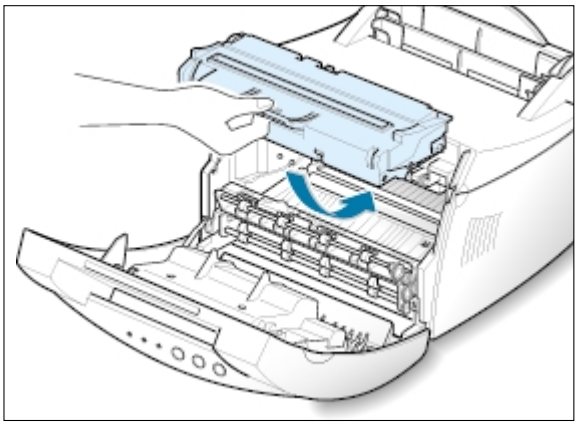
- Avoid reaching too far into the printer. **The fusing area may be hot**.
- To prevent damage to the toner cartridge, **do not expose it to light for** more than a few minutes.

3 Gently shake the toner cartridge from side to side 5 or 6 times to redistribute the toner.

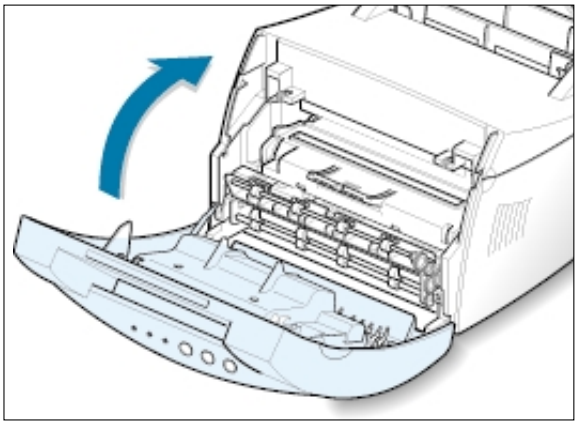


Note: If the toner gets on your clothing, wipe it off with a dry cloth and wash clothing in cold water. **Hot water sets toner into fabric**.

4 Reinsert the toner cartridge into the printer. Be sure that the toner cartridge snaps in its place.



5 Firmly close the cover.



If the print remains light

Remove the old cartridge and install a new toner cartridge. See "Install the Toner Cartridge" on page 2.2.

Cleaning the Printer

To maintain print quality, follow the cleaning procedures below every time the toner cartridge is replaced or whenever print quality problems occur. As much as possible, keep the printer free from dust and debris.

Notes:

- Do not use ammonia-based cleaners or volatile solvents such as thinner, on or around the printer. These can damage the printer.
- While cleaning the inside of the printer, be careful not to touch the transfer roller (located underneath the toner cartridge). The oil from your hands on the roller can cause print quality problems.

Cleaning the Outside

Wipe the outside surface of the printer with a soft, clean, lint-free cloth. You can dampen the cloth slightly with water, but be careful not to let any water drip onto the printer or inside it.

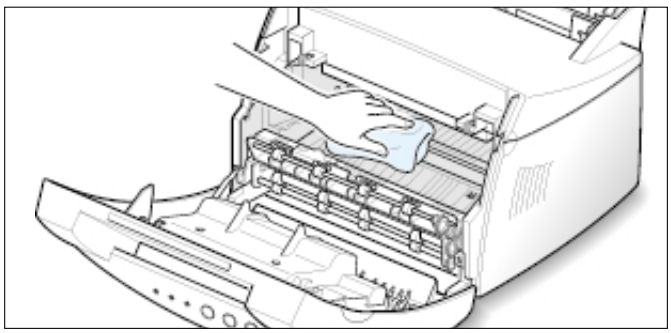
Cleaning the Inside

During the printing process, paper, toner, and dust particles can accumulate inside the printer. Over time, this buildup can cause print quality problems such as toner specks or smearing. Cleaning inside the printer will eliminate or reduce these problems.

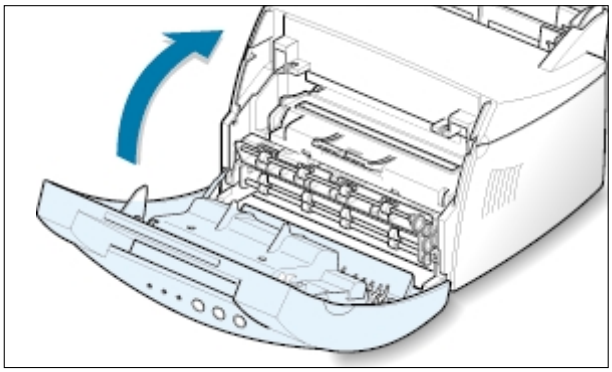
Cleaning inside the printer

Note: To prevent damage to the toner cartridge, do not expose it to light for more than a few minutes. Cover it with a piece of paper, if necessary. Also, do not touch the black transfer roller inside the printer. By doing so, you can damage the printer.

1. **Turn the printer off** and unplug the power cord, then wait for the printer to cool.
2. Open the front cover and remove the toner cartridge.
3. With a dry, lint-free cloth, wipe away any dust and spilled toner from the toner cartridge area and the toner cartridge cavity.



4 Reinsert the toner cartridge and close the cover.



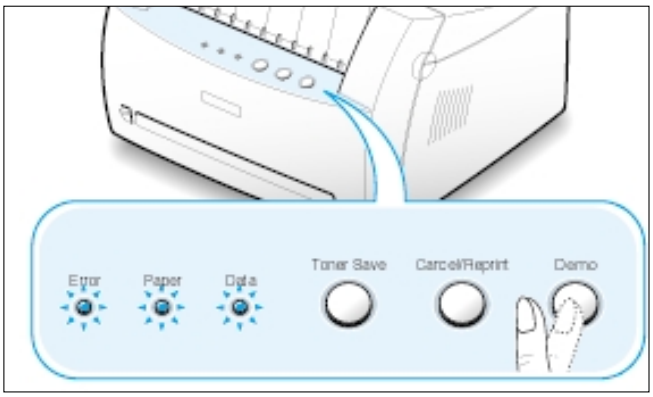
5 Then, plug in the power cord, and turn the printer on.

Printing a cleaning sheet

Printing a cleaning sheet cleans the drum inside the toner cartridge. Use this process if you are experiencing blurred, faded or smeared printouts. This process will produce a page with toner debris, which should be discarded.

1 Make sure the printer is turned on and in the Ready mode and that there is paper loaded in the automatic input tray.

2 Press and hold down **Demo** on the control panel for about 10 seconds until all control panel lights remain lit, then release the button.



3 Your printer automatically picks up a sheet of paper from the tray and prints out a cleaning sheet with the dust or toner particles on it.

Note: The cartridge cleaning process takes some time. To stop the printing, turn the power off.

chapter 7

Problem Solving

This chapter gives helpful information for what to do if you encounter a printer error. It provides information on the following topics:

- Troubleshooting Checklist
- Solving General Printing Problems
- Clearing Paper Jams
- Solving Print Quality Problems
- Troubleshooting Error Messages
- Common Windows Problems

Troubleshooting Checklist

If the printer is not working properly, complete the following checklist in order. If the printer does not pass a step, follow the corresponding troubleshooting suggestions.

Check	Solution
Make sure that the **Data** light on the control panel is on.	• If no lights are on, check the power cord connection and the power switch. Check the power source by plugging into another outlet. • If other lights are on, go to "Troubleshooting Error Messages" on page 7.17.
Press the **Demo** button to print a demo page to verify that the printer is feeding paper correctly. See page 2.7.	• If a demo page does not print, check the paper supply in the input tray. • If the paper jams in the printer, go to " Clearing Paper Jams" on page 7.6. • If the **Error** indicator light is illuminated on the control panel, go to "Troubleshooting Error Messages" on page 7.17.
Check the demo page to see if it is printed correctly.	If there is a print quality problem, go to "Solving Print Quality Problems" on page 7.11.
Print a short document from a software application to verify the computer and printer are connected and are communicating correctly.	• If the page does not print, check the cable connection between the printer and computer. • Check the print queue or print spooler to see if the printer has been paused. • Check the software application to make sure you are using the proper printer driver and communication port. If the page is interrupted during printing, go to "Solving General Printing Problems" on page 7.2.
If completing the checklist did not diagnose the problem with the printer, check the following troubleshooting sections.	• "Solving General Printing Problems" on page 7.2. • "Troubleshooting Error Messages" on page 7.17. • "Common Windows Problems" on page 7.20.

Solving General Printing Problems

If you have any problems with the operation of your printer, refer to the table for suggested solutions.

Problem	Possible Cause	Solution
The printer does not print.	The printer is not receiving power.	If no lights are on, check the power cord connections. Check the power switch and the power source.
	Your printer is not selected as the default printer.	Select **Samsung ML-1250 PCL 6** as your default printer.
	Check the printer for the following:	• The printer cover is not closed. • Paper is jammed. • No paper is loaded. • Toner cartridge is not installed. • Printer system error occurs. Contact a service representative.
	The printer may be in manual feed mode and out of paper. (The **Paper** light is on.)	Add paper to the manual input tray, and press the **Demo** button on the printer's control panel to start printing.
	The connection cable between the computer and the printer is not connected properly.	Disconnect the printer cable and reconnect it.
	The connection cable between the computer and the printer is defective.	If possible, attach the cable to another computer that is working properly and print a job. You may also try using a different printer cable.
	The port setting is incorrect.	Check the Windows printer setting to make sure that the print job is sent to the correct port (for example, LPT1). If the computer has more than one port, make sure the printer is attached to the correct one.

Problem	Possible Cause	Solution
The printer does not print. (continued)	The printer may be configured incorrectly.	Check the printer properties to make sure that all print settings are correct.
	The printer driver may be incorrectly installed.	Uninstall the printer driver, then reinstall the printer driver. Try printing a demo page.
	The printer is malfunctioning.	Check the lights on the control panel to determine if the printer is indicating a system error.
Printer selects media from the wrong paper source.	The paper source selection in the printer properties may be incorrect.	For many software applications the paper source selection is found under the **Paper** tab within the printer properties. Select the correct paper source.
Paper does not feed into the printer.	Paper has not been loaded correctly.	Remove paper from the input tray and reload it correctly.
	There is too much paper in the input tray.	Remove excess paper from the input tray.
	The paper is too thick.	Use only paper that meets the specifications required by the printer.
Print job is extremely slow.	The job may be very complex. The maximum print speed of the Samsung ML-1250 printer is 12 pages per minute.	Reduce the complexity of the page or try adjusting the print quality settings.
	If using Windows 95, the Spooling Setting may be set incorrectly.	Access the **Start** menu, and then choose **Settings** and **Printers**. Right-click the **Samsung ML-1250 PCL 6** printer icon, choose **Properties**, click the **Details** tab, and then choose the **Spool Settings** button. Select the desired spool setting from the available choices.

Problem	Possible Cause	Solution
Half of the page is blank.	The page layout is too complex.	Simplify the page layout and remove any unnecessary graphics from the document, if possible.
	The page orientation setting may be incorrect.	Change the page orientation in your application.
	The paper size and the paper size settings do not match.	Make sure that the paper size in the print settings matches the paper in the input tray.
The paper keeps jamming.	There is too much paper in the paper tray.	Remove excess paper from the tray. If printing special media, use the manual input tray.
	An incorrect type of paper is being used.	Use only paper that meets the specifications required by the printer.
	An incorrect output method is being used.	Media such as thick paper should not be printed using the face-down output tray. Use the face-up output slot instead.
	There may be debris inside the machine.	Open the front cover and remove the debris.
The printer prints, but the text is wrong, garbled, or incomplete.	The printer cable is loose or defective.	Disconnect the printer cable and reconnect it. Try a print job that you know works. If possible, attach the cable and printer to another computer and try a print job that you know works. Finally, try a new printer cable.
	The wrong printer driver was selected.	Check the application's printer selection menu to make sure that your printer is selected.

Problem	Possible Cause	Solution
The printer prints, but the text is wrong, garbled, or incomplete. (continued)	The software application is malfunctioning.	Try printing a job from another application.
Pages print, but are totally blank.	The toner cartridge is defective or out of toner.	Replace the toner cartridge.
	The file may have blank pages.	Check the file to make sure that it does not contain blank pages.
	Some parts, such as the controller, the board, may be defective.	Contact a service representative.
Illustrations will not print correctly when using Adobe Illustrator.	The setting in the software application is wrong.	Print the document with the **Bitmap Printing** checkbox in the Print dialog box empty.

Clearing Paper Jams

Occasionally, paper can become jammed during a print job. Some of the causes include:

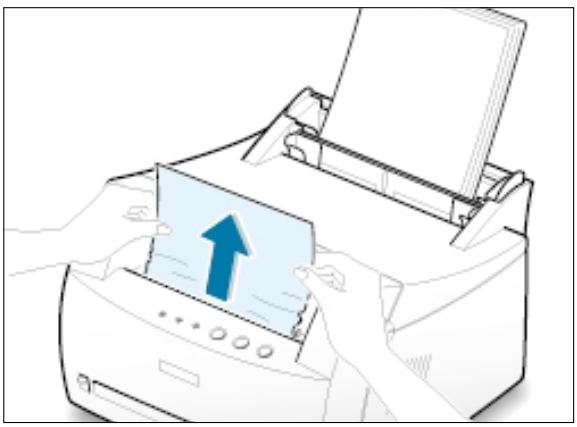
- The paper tray is loaded improperly or overfilled.
- The paper tray has been pulled out during a print job.
- The top cover has been opened during a print job.
- Paper that does not meet paper specifications has been used. See "Paper Specifications" on page A.2.
- Paper that is outside of the supported size range has been used. See "Paper Specifications".

If a paper jam occurs, the **Paper** and the **Error** lights remain lit on the control panel. Find and remove the jammed paper. If the location of the paper jam is not obvious, look inside the printer first.

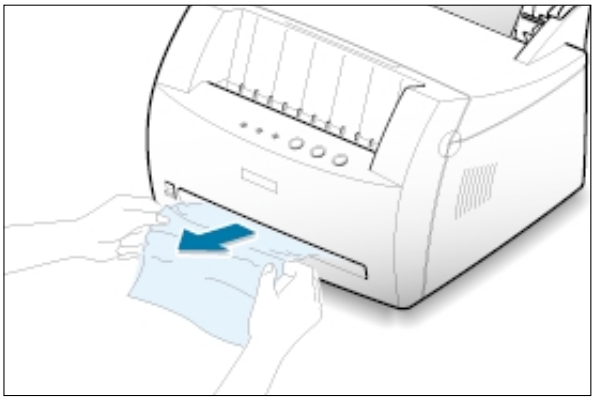
Output Area

Note: Paper jams in this area may result in loose toner on the page. If you get any toner on your clothes, wash them in cold water because hot water will set the toner into the fabric.

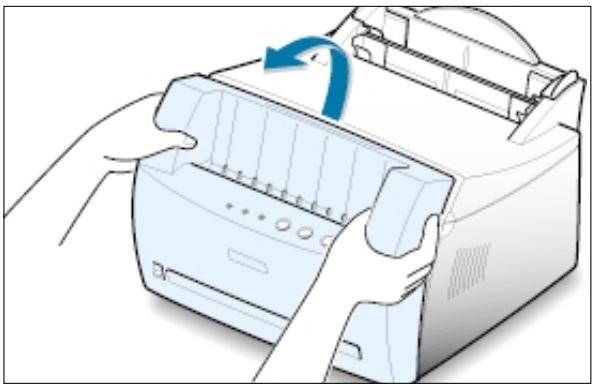
1 Pull the jammed paper carefully out of the output stacker.



If paper is jammed in the face-up output slot, carefully remove the paper as shown.



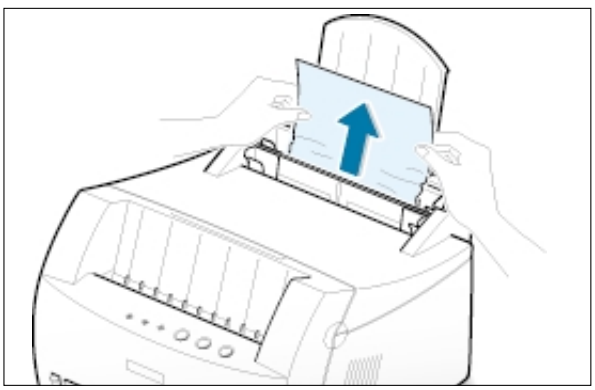
2 Open and close the front cover. Printing can be resumed.



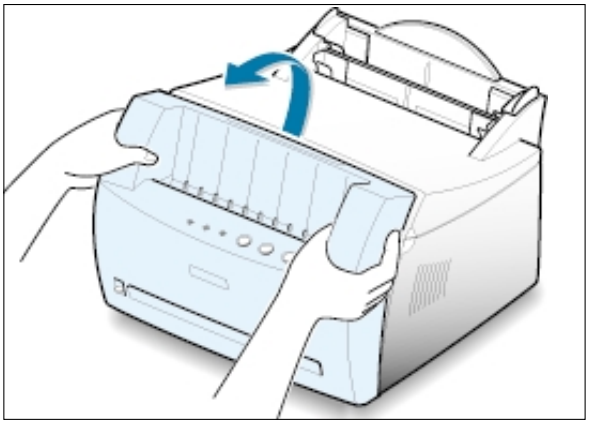
Input Area

Note: If paper has entered the toner cartridge area, follow the instructions on page 7.8. It is easier to remove such jams from the inside of the printer than the paper input area.

1 Carefully pull the jammed paper out of the input tray.



2 Open and close the front cover to resume printing.

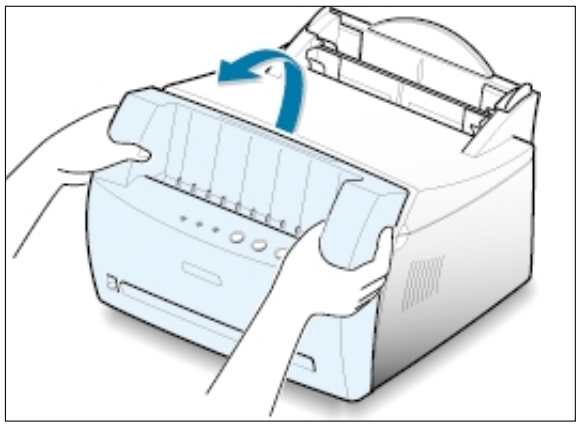


Note: If the **Paper** and the **Error** lights do not turn off, there is still jammed paper inside the printer. Check the inside of the printer.

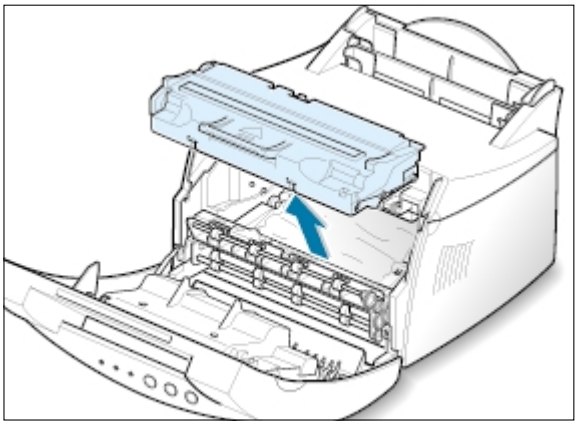
Inside the Printer

Note: Paper jams in this area may result in loose toner on the page. If you get any toner on your clothes, wash them in cold water because hot water will set the toner into the fabric.

1 Grasp the front cover by both sides of the cover and pull it toward you to open.



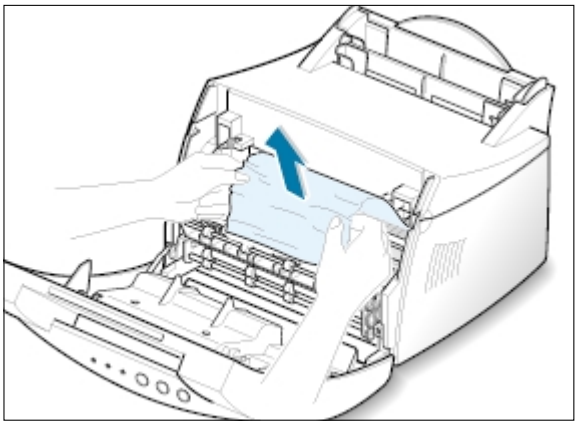
2 Remove the toner cartridge.



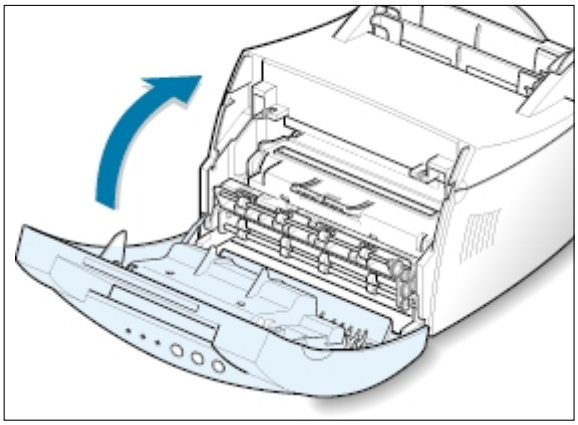
CAUTION: To prevent damage to the toner cartridge, do not expose it to light for more than a few minutes. Place a piece of paper over the top of the toner cartridge to shield it while it is out of the printer.

3 Gently pull the paper toward you to remove it from the printer.

Make sure that there is no paper remaining inside the printer.



4 Reinsert the toner cartridge and close the front cover. Printing can be resumed.



Tips for Avoiding Paper Jams

By selecting correct paper types and loading them properly, you should be able to avoid most paper jams. If paper jams occur, follow the steps outlined in "Clearing Paper Jams" on page 7.6. If jams occur frequently, make sure you are following these tips to avoid jams.

- Follow the procedures in "**Load Paper**" on page 2.4 to load the paper properly. Make sure the adjustable guides are positioned correctly.
- Do not overload the automatic input tray. Make sure the paper is under the paper capacity mark on the inside of the tray.
- Do not remove the paper from the input tray while print jobs are in process.
- Flex, fan and straighten the paper before loading it.
- Do not load wrinkled, creased, damp or highly curled paper.
- Do not mix paper types in the input tray.
- Use only recommended print media. See "Paper Specifications" on page A.2.
- Make sure that the recommended print side is facing up when loading the paper into both input trays.
- Keep print media stored in an acceptable environment. See "Printer and Paper Storage Environment" on page A.6.

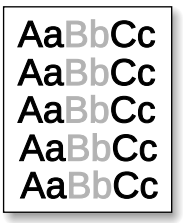
Solving Print Quality Problems

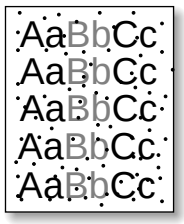
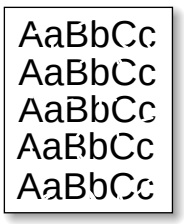
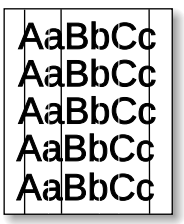
Print Quality Checklist

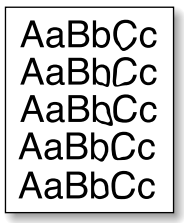
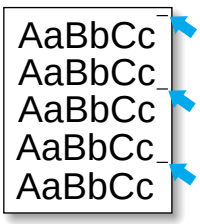
General print quality problems can be solved by following the checklist below.

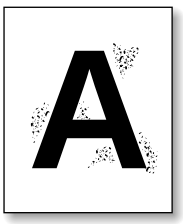
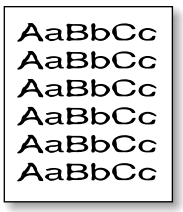
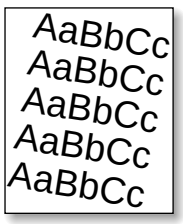
- Redistribute the toner in the toner cartridge (see page 6.2).
- Clean the inside of the printer (see page 6.4).
- Adjust the print resolution from the printer properties (see page 5.12).
- Check to make sure that Toner Save Mode is off (see page 5.6).
- Troubleshoot general printing problems (see page 7.2).
- Install a new toner cartridge, then check print quality again (see page 2.2).

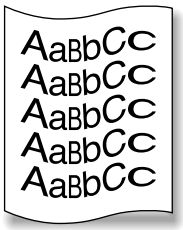
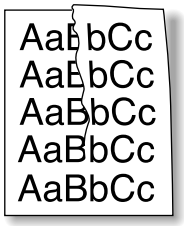
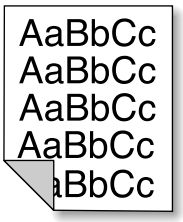
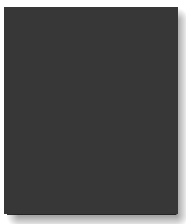
Solving Print Quality Problems

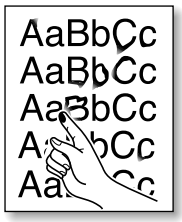
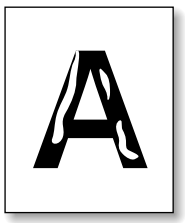
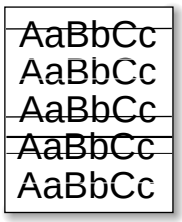
Problem	Solution
Light or faded print 	If a vertical white streak or faded area appears on the page: • The toner supply is low. You may be able to temporarily extend the toner cartridge life. See "Redistributing the Toner" on page 6.2. If this does not improve the print quality, install a new toner cartridge. • The paper may not meet paper specifications (for example, the paper is too moist or too rough). See "Paper Specifications" on page A.2. • If the whole page is light, the print resolution setting is too light or Toner Save Mode may be on. Adjust the print resolution and Toner Save Mode within the printer properties. See page 5.6 and 5.12 respectively. • A combination of faded and smeared defects may indicate that the toner cartridge needs cleaning. See "Cleaning the Printer" on page 6.4. • The surface of the LSU part inside the printer may be dirty. Clean the LSU. See "Cleaning the Printer".

Problem	Solution
Toner specks 	• The paper may not meet paper specifications (for example, the paper is too moist or too rough). See "Paper Specifications" on page A.2. • The transfer roller may be dirty. See "Cleaning the Inside" on page 6.4. • The paper path may need cleaning. See "Cleaning the Inside".
Dropouts 	If faded areas, generally rounded, occur randomly on the page: • A single sheet of paper may be defective. Try reprinting the job. • The moisture content of the paper is uneven or the paper has moist spots on its surface. Try a different kind or brand of paper. See "Paper Specifications" on page A.2. • The paper lot is bad. The manufacturing processes can cause some areas to reject toner. Try a different kind or brand of paper. • The toner cartridge may be defective. See "Vertical repetitive defects" on page 7.13. • If these steps do not correct the problems, contact a service representative.
Vertical lines 	If black vertical streaks appear on the page: • The photosensitive drum inside the toner cartridge has probably been scratched. Install a new toner cartridge.

Problem	Solution
Gray background 	If the amount of background toner shading becomes unacceptable, the procedures below may help to clear the condition: • Change the paper to a lighter basis weight. See "Paper Specifications" on page A.2. • Check the printer's environment; very dry (low humidity) or high humidity (higher than 80 % RH) conditions can increase the amount of background shading. • Install a new toner cartridge.
Toner smear 	• Clean the inside of the printer. See "Cleaning the Inside" on page 6.4. • Check the paper type and quality. See "Paper Specifications" on page A.2. • Try installing a new toner cartridge.
Vertical repetitive defects 	If marks repeatedly appear on the printed side of the page at even intervals: • The toner cartridge may be damaged. If a repetitive mark occurs every 95 mm or 38 mm on the page, print a cleaning sheet several times to clean the cartridge (see page 6.5). After the printout, if you still have the same problems, install a new toner cartridge. • Parts in the printer may have toner on them. If the defects occur on the back of the page, the problem will likely correct itself after a few more pages. • The fusing assembly may be damaged. Contact a service representative.

Problem	Solution
Background scatter 	Background scatter results from bits of toner distributed on the printed page. • The paper may be too damp. Try printing with a different batch of paper. Do not open packages of paper until necessary so that the paper does not absorb too much moisture from the air. • If background scatter occurs on an envelope, change your printing layout to avoid printing over areas that have overlapping seams on the reverse side. Printing on seams can cause this problem. • If background scatter covers the entire surface of a printed page, adjust the print resolution through your software application or the printer properties.
Misformed characters 	• If characters are improperly formed, producing hollow images, the paper stock may be too slick. Try a different paper. See "Paper Specifications" on page A.2. • If characters are improperly formed, producing a wavy effect, the scanner unit may need service. Verify that it also occurs on a demo page by pressing the **Demo** button on the control panel when printer is ready. If you need service, contact a service representative.
Page skew 	• Check the paper type and quality. See "Paper Specifications" on page A.2. • Make sure that the paper or other media is loaded correctly and that the guides are not too tight or too loose against the paper stack.

Problem	Solution
Curl or wave 	• Check the paper type and quality. Both high temperature and humidity will cause paper curl. See "Paper Specifications" on page A.2. • Turn over the stack of paper in the input tray. Also try rotating the paper 180° in the input tray. • Push the output lever and try printing to the face up output slot.
Wrinkles or creases 	• Make sure that paper is loaded properly. • Check the paper type and quality. See "Paper Specifications" on page A.2. • Push the output lever and try printing to the face up output slot. • Turn over the stack of paper in the input tray. Also try rotating the paper 180° in the feeder.
Back of printouts dirty 	• The transfer roller may be dirty. See "Cleaning the Inside" on page 6.4. • Check if the toner is leaking. Clean inside the printer.
Black pages 	• The toner cartridge may not be installed properly. Remove the cartridge and reinsert it. • The toner cartridge may be defective and need replacing. Install a new toner cartridge. • The printer may require repairs. Contact a service representative.

Problem	Solution
Loose toner 	• Clean the inside of the printer. • Check the paper type and quality. See "Paper Specifications" on page A.2. • Try installing a new toner cartridge. • If the problem persists, the printer may require repairs. Contact a service representative.
Character Voids 	Character voids are white areas within the parts of characters that should be solid black: • If you are using transparencies when you experience this problem, try another type of transparency. (Because of the composition of transparency media, some character voids are normal.) • You may be printing on the wrong surface of the paper. Remove the paper and turn it around. • The paper may not meet paper specifications. See "Paper Specifications" on page A.2.
Horizontal stripes 	If horizontally aligned black streaks or smears appear: • The toner cartridge may be installed improperly. Remove the cartridge and reinsert it. • The toner cartridge may be defective. Install a new toner cartridge. • If the problem persists, the printer may require repairs. Contact a service representative.

Troubleshooting Error Messages

When the printer experiences an error, the control panel will indicate error messages by the indicator lights. Find the light pattern below that matches the printer light pattern and follow the solutions to clear the error.

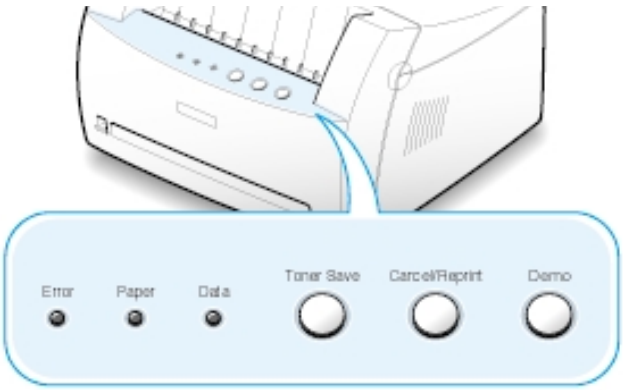
Printer Light Patterns

Light status legend

symbol for "light off"

symbol for "light on"

symbol for "light blinking"



Error Paper Data

Power off

- Check the power cord and the power switch if your printer does not generate a response.
- Make sure that the printer is powered with the specified AC voltage.

Error Paper Data

Paper jam, or no toner cartridge

Paper is jammed inside the printer or the toner cartridge is not installed.

- Clear the paper jam. See "Clearing Paper Jams" on page 7.6.
- Make sure that the toner cartridge is correctly installed in the printer.

Error Paper Data

Paper out

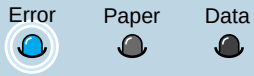
The printer is out of paper in the input tray.

- Load paper into the tray. For the automatic input tray, loading paper will cancel this message and allow you to continue with the print job. For the manual input tray, press the **Demo** button after loading paper.

Waiting for the Demo button to be pressed

While printing in the manual feed mode, the printer is waiting for the **Demo** button to be pressed.

- Press the **Demo** button on the control panel to start printing. You must press the button to print each page after loading paper into the manual input tray.



Door open

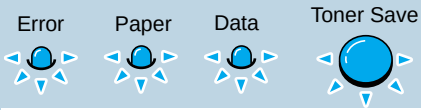
The printer front cover may be open.

- Check that the printer front cover door is closed properly.

Canceling a job or memory out

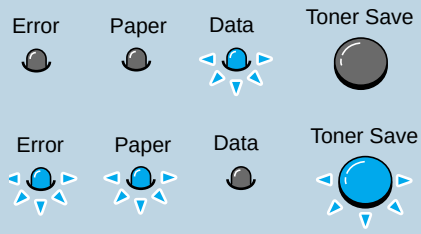
If your printer is canceling a job (see page 5.5), the **Error** light blinks. When cancellation is complete, the message will automatically clear. The printer memory may not be sufficient for the print job. The page being printed may have been too complex for the memory capacity of the printer. Press the **Cancel/Reprint** button to cancel the current job.

- Try to free up memory by removing any unnecessary fonts, macros, or any data currently in printer memory.
- Simplify the image or print at a lower resolution.



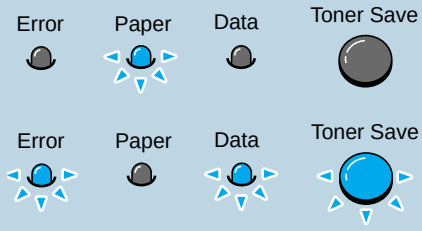
LSU error

- Reset the printer by briefly turning the printer off and back on again.
- If the error persists, contact a service representative.



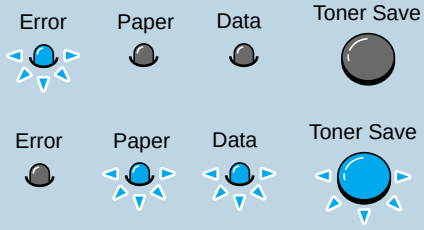
Engine Over Heat error

- Reset the printer by briefly turning the printer off and back on again.
- If the error persists, contact a service representative.



System error(No Heat error)

- Reset the printer by briefly turning the printer off and back on again.
- If the error persists, contact a service representative.



Open Fuser error

- Reset the printer by briefly turning the printer off and back on again.
- If the error persists, contact a service representative.

Common Windows Problems

Problem	Possible Cause and Solution
"File in Use" message appears during installation.	Quit all software applications. Remove all software from the StartUp Group, then restart Windows. Reinstall the printer driver.
"Error Writing to LPTx" message appears.	• Make sure the cables are connected correctly, the printer is on, and the **Data** light on the control panel is on. • If bi-directional communication is not turned on in the driver, it will also cause this message. • From the **Start** menu, select **Settings**, then **Printers**. Right-click on the **Samsung ML-1250 PCL 6** printer icon and select **Properties**. From the **Details** tab, click on **Port Settings**. Remove check from **Check Port State before Printing** box and click **OK**. From **Spool Settings**, select **Print Directly to Printer** and click **OK**. Try printing again.
"General Protection Fault", "Exception OE", "Spool32", or "Illegal Operation" messages appear.	• Close all other applications, reboot Windows, and try printing again. • Delete all temp files from the Temp sub-directory. You can determine the name of the directory by editing the AUTOEXEC.BAT file and looking for the statement, "**Set Temp =**". The name after this statement is the temp directory. It is usually **C:\temp** by default, but can be redefined.

Note: Refer to Microsoft Windows 9x or NT 4.0 documentation that came with your PC for further information on Windows error messages.

Appendix

This appendix provides information on the following topics:

- Printer Specifications
- Paper Specifications
- Using Your Printer with a USB Cable
- Using Your Printer with Macintosh
- Printing from DOS applications
- Linux Driver Installation
- Installing Optional Memory Card

Printer Specifications

Item	Specification and Description
Print Speed	12 PPM
Resolution	1200 dpi class
First Printing Time	Less than 12.5 seconds
WarmUp Time	30 seconds
Power Rating	AC 100 ~ 120 V (USA, Canada) / 220 ~ 240 V (Others), 50 / 60 Hz
Power Consumption	250 W average during operation / Less than 10 W in sleep mode
Acoustic Noise	Stand by: Less than 35 dB; Operating: Less than 47 dB
Toner Supply	Single cartridge
Toner Cartridge Life	2,500 pages (for starter, 1,000 pages), 5% area coverage
Duty Cycle	Monthly: 12,000 pages maximum
Weight	6.5 Kg / 13.4 lb.
Package Weight	Paper: 1.83 Kg Plastic: 0.33 Kg
External Dimensions (W x D x H)	329 x 355 x 231 mm / 12.95 x 13.98 x 9.09 in.
Operating Environment	Temperature:10 ~ 32 °C / 50 ~ 90 °F; Humidity: 20 ~ 80 % RH
Emulation	PCL 6
Fonts	1 bitmap, 45 scalable
Interface Switching	Automatic (Parallel, USB)
Interface	• 12PPM (A4) Bidirectional Parallel Standard - Modes supported: Compatible, Nibble, Byte, ECP • USB Interface Standard - USB 1.0 compliant - 12Mbps 1 port
Random Access Memory (RAM)	4 MB (expandable up to 68 MB)
Fresh Time	1 K (1024 cycles/16 mS) / 2 K (2048 cycles/32 mS)

Paper Specifications

Overview

This printer accepts a variety of media, such as cut-sheet paper (including up to 100 % recycled fiber content paper), envelopes, labels, transparencies and custom-size paper. Properties such as weight, composition, grain and moisture content are important factors affecting printer performance and output quality. Paper that does not meet the guidelines outlined in this manual can cause the following problems:

- Poor print quality
- Increased paper jams
- Premature wear on the printer, requiring repairs.

Notes:

- Some paper may meet all of the guidelines in this manual and still not produce satisfactory results. This might be the result of improper handling, unacceptable temperature and humidity levels, or other variables over which Samsung has no control.
- Before purchasing large quantities of paper, make sure that the paper meets the requirements specified in this user guide. Always test paper before buying large quantities.

CAUTION: Using paper that does not meet these specifications may cause problems for the printer, requiring repairs. This repair is not covered by the Samsung warranty or service agreements.

Supported Sizes of Paper

Paper	Dimensions		Weight	Capacity[a]
Letter	8.5 X 11 in. (216 X 279 mm)		16 to 24 lb Bond (60 to 105 g/m²)	• 150 sheets of 20 lb Bond (75 g/m²) paper for the automatic input tray • 1 sheet of paper for the manual input tray
A4	210 X 297 mm (8.3 X 11.7 in.)			
Executive	7.3 X 10.5 in. (191 X 267 mm)			
Legal	8.5 X 14 in. (216 X 356 mm)			
B5 (JIS)	182 X 257 mm (7.2 X 10 in.)			
Folio	216 X 330 mm (8.5 X 13 in.)			
Minimum Size (custom)	Automatic Input Tray	95 X 127 mm (3.8 X 5 in.)	60 to 163 g/m² Bond (16 to 43 lb)	• 5 sheets of 20 lb Bond (75 g/m²) paper for the automatic input tray • 1 sheet paper for the manual input tray
	Manual Input Tray	76 X 127 mm (3 X 5 in.)		
Maximum Size (custom)	216 X 356 mm (8.5 X 14 in.)			
Transparency	Same minimum and maximum paper sizes as listed above.		Thickness: .10 X .14 mm (0.0039 X 0.0055 in.)	
Labels[b]				
Envelopes			up to 90 g/m² (16-24 lb)	

a. Capacity may vary depending on media weight and thickness, and environmental conditions.
b. Smoothness - 100 to 250 (Sheffield)

Note: You may experience some paper jams when using any media with a length of less than 127 mm (5 in.). For optimum performance, make sure you are storing and handling the paper correctly. Please refer to “Printer and Paper Storage Environment” on page A.6.

Guidelines for Using Paper

For best results, use conventional 75 g/m^2 (20 lb) paper. Make sure the paper is of good quality, and free of cuts, nicks, tears, spots, loose particles, dust, wrinkles, voids, and curled or bent edges.

If you are unsure of what type of paper you are loading (such as bond or recycled), check the label on the package of the paper.

The following problems with paper cause print quality deviations, jamming, or even damage to the printer.

Symptom	Problem with Paper	Solution
Poor print quality or toner adhesion Problems with feeding	Too moist, too rough, too smooth, or embossed; faulty paper lot	Try another kind of paper, between 100 ~ 250 Sheffield, 4 ~ 5 % moisture content.
Dropout, jamming, curl	Stored improperly	Store paper flat in its moisture-proof wrapping.
Increased gray background shading /printer wear	Too heavy	Use lighter paper, open the rear output tray.
Excessive curl problems with feeding	Too moist, wrong grain direction or short-grain construction	• Open the rear output tray. • Use long-grain paper.
Jamming, damage to printer	Cutouts or perforations	Do not use paper with cutouts or perforations.
Problems with feeding	Ragged edges	Use good quality paper

Notes:

- Do not use letterhead paper that is printed with low-temperature inks, such as those used in some types of thermography.
- Do not use raised or embossed letterhead.
- The printer uses heat and pressure to fuse toner to the paper. Make sure that any colored paper or preprinted forms use inks that are compatible with this fusing temperature (200 °C or 392 °F for 0.1 second).

Paper Specifications

Category	Specifications
Acid Content	5.5 ~ 8.0 pH
Caliper	.094 ~ .18 mm (3.0 ~ 7.0 mils)
Curl in Ream	Flat within 5 mm (.02 in.)
Cut Edge Conditions	Cut with sharp blades with no visible fray.
Fusing Compatibility	Must not scorch, melt, offset, or release hazardous emissions when heated to 200 °C (392 °F) for .1 second.
Grain	Long Grain
Moisture Content	4 % ~ 6 % by weight
Smoothness	100 ~ 250 Sheffield

Paper Output Capacity

Output Tray	Capacity
Face-down output tray	100 sheets of 20 lb bond (75 g/m^2) paper
Face-up output slot	1 sheet of 20 lb bond (75 g/m^2) paper

Printer and Paper Storage Environment

Ideally, the printer and paper storage environment should be at or near room temperature, and not too dry or humid. Remember that paper absorbs and loses moisture rapidly.

Heat works with humidity to damage paper. Heat causes the moisture in paper to evaporate, while cold causes it to condense on the sheets. Heating systems and air conditioners remove most of the humidity from a room. As paper is opened and used, it loses moisture, causing streaks and smudging. Humid weather or water coolers can cause the humidity to increase in a room. As paper is opened and used it absorbs any excess moisture, causing light print and dropouts. Also, as paper loses and gains moisture it can distort. This can cause paper jams.

As a result, paper storage and handling are as important as the paper-making process itself. Paper storage environmental conditions directly affect the feed operation.

Care should be taken not to purchase more paper than can be easily used in a short time (about 3 months). Paper stored for long periods may experience heat and moisture extremes, which can cause damage. Planning is important to prevent damage to large supply of paper.

Unopened paper in sealed reams can remain stable for several months before use. Opened packages of paper have more potential for environment damage, especially if they are not wrapped with a moisture-proof barrier.

The paper storage environment should be properly maintained to ensure optimum printer performance. The required condition is 20 ° to 24 °C (68° to 75 °F), with a relative humidity of 45 % to 55 %. The following guidelines should be helpful when evaluating the paper's storage environment:

- Paper should be stored at or near room temperature.
- The air should not be too dry or too humid (due to the hygroscopic properties of paper).
- The best way to store an opened ream of paper is to rewrap it tightly in its moisture-proof wrapping. If the printer environment is subject to extremes, unwrap only the amount of paper to be used during the day's operation to prevent unwanted moisture changes.

Envelopes

Envelope construction is critical. Envelope fold lines can vary considerably, not only between manufacturers, but also within a box from the same manufacturer. Successful printing on envelopes depends upon the quality of the envelopes. When selecting envelopes, consider the following components:

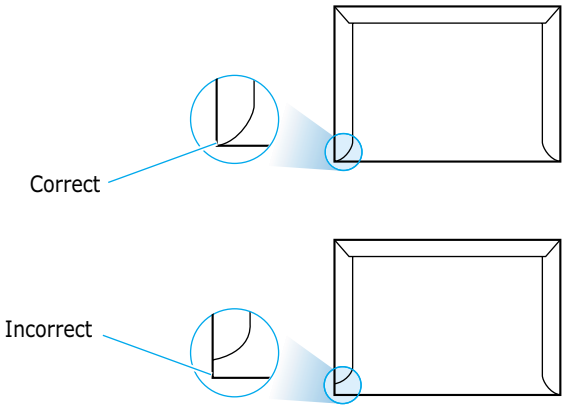
- **Weight:** The weight of the envelope paper should not exceed 90 g/m^2 (24 lb) or jamming may occur.
- **Construction:** Prior to printing, envelopes should lie flat with less than 6 mm (0.25 in.) curl, and should not contain air.
- **Condition:** Envelopes should not be wrinkled, nicked, or otherwise damaged.
- **Temperature:** You should use envelopes that are compatible with the heat and pressure of the printer.
- **Size:** You should use only envelopes within the following size ranges.

	Minimum	Maximum
Automatic input tray	95 X 127mm (3.8 X 5 in.)	216 X 356 mm (8.5 X 14 in.)
Manual input tray	76 X 127 mm (3 X 5 in.)	

Note: You may experience some paper jams when using any media with a length of less than 127 mm (5 in.). This may be caused by paper that has been affected by environmental conditions. For optimum performance, make sure you are storing and handling the paper correctly. Please refer to “Printer and Paper Storage Environment” on page A.6.

Envelopes with Double Side Seams

Double side-seams construction has vertical seams at both ends of the envelope rather than diagonal seams. This style may be more likely to wrinkle. Be sure the seam extends all the way to the corner of the envelope as illustrated below.



Envelopes with Adhesive Strips or Flaps

Envelopes with a peel-off adhesive strip or with more than one flap that folds over to seal must use adhesives compatible with the heat and pressure in the printer. The extra flaps and strips might cause wrinkling, creasing, or even jams and may even damage the fuser.

Envelope Margins

The following gives typical address margins for a commercial #10 or DL envelope.

Type of Address	Minimum	Maximum
Return address	15 mm (0.6 in.)	15 mm (0.6 in.)
Delivery address	51 mm (2 in.)	89 mm (3.5 in.)

Notes:

- For best print quality, position margins no closer than 15 mm (0.6 in.) from the edges of the envelope.
- Avoid printing over the area where the envelope's seams meet.

Envelope Storage

Proper storage of envelopes helps contribute to print quality. Envelopes should be stored flat. If air is trapped in an envelope, creating an air bubble, then the envelope may wrinkle during printing. See "Printing on Envelopes" on page 4.7.

Labels

CAUTIONS:

- To avoid damaging the printer, use only labels recommended for laser printers.
- To prevent serious jams, always use the face-up output slot.
- Never print on the same sheet of labels more than once or print on a partial sheet of labels.

When selecting labels, consider the quality of each component:

- **Adhesives:** The adhesive material should be stable at 200 °C (392 °F), the printer's fusing temperature.
- **Arrangement:** Only use labels with no exposed backing between them. Labels can peel off sheets with spaces between the labels, causing serious jams.
- **Curl:** Prior to printing, labels must lie flat with no more than 13 mm (.5 in.) of curl in any direction.
- **Condition:** Do not use labels with wrinkles, bubbles, or other indications of separation.

See "Printing on Labels" on page 4.10.

Transparencies

Transparencies used in the printer must be able to withstand 200 °C (392 °F), the printer's fusing temperature.

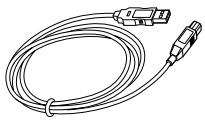
CAUTION: To avoid damaging the printer, use only transparencies recommended for use in laser printers.

See "Printing on Transparencies" on page 4.11.

Using Your Printer with a USB Cable

If you have a USB (Universal Serial Bus) port enabled on your computer, and if your computer is running Windows 98, you can connect your ML-1250 printer to the USB chain of devices.

Note:
- To connect the printer to the USB port of the computer requires a certified USB cable. You will need to buy the USB 1.0 compliant cable. And the length should be less than three meters.
- You must install the printer driver before you connect the USB cable in Windows 2000.



Installing the Printer Software

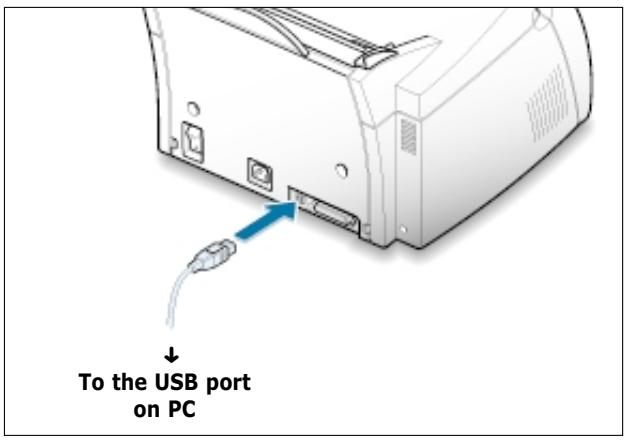
1. Install PCL 6 driver

To operate your printer with a Windows PC, you must install the PCL 6 printer driver. Place the CD-ROM in the CD-ROM drive and perform the instructions on page 2.8.

2. Connect printer with USB cable and install USB driver

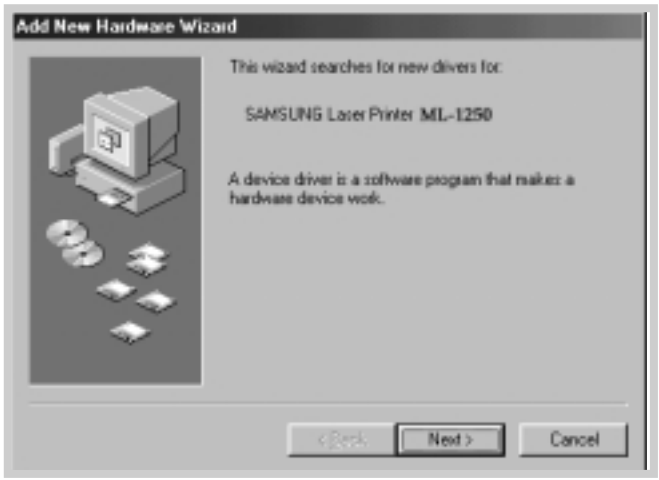
1 Make sure that both the printer and computer are turned **ON**.

2 Plug one end of the USB cable into the USB port on the printer.

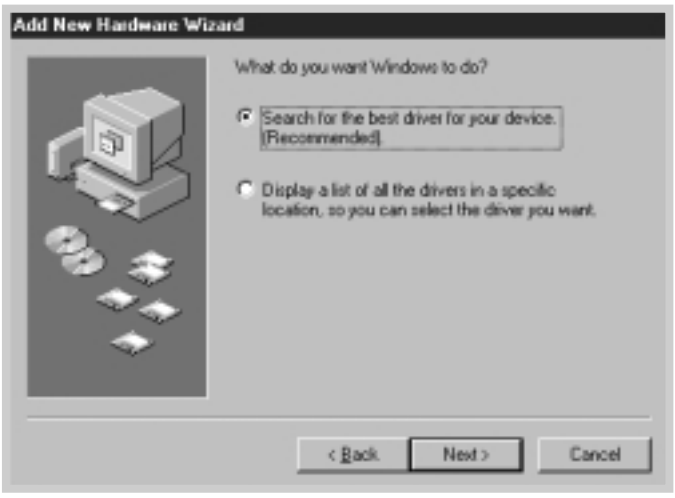


3 Plug the other end into the USB port on the computer.

4 The Add New Hardware Wizard dialog box appears. Click **Next**.


Add New Hardware Wizard
This wizard searches for new drivers for:
SAMSUNG Laser Printer ML-1250
A device driver is a software program that makes a hardware device work.
< Back
Next >
Cancel

5 Check **Search for the best driver for your device** and click **Next**.


Add New Hardware Wizard
What do you want Windows to do?
Search for the best driver for your device. (Recommended)
Display a list of all the drivers in a specific location, so you can select the driver you want.
< Back
Next >
Cancel

6 Check **CD-ROM drive** and click **Browse**, then choose **D:\1250\ENG\USB** (where **D** is the drive letter for the CD-ROM drive).

Add New Hardware Wizard
Windows will search for new drivers in its driver database on your hard drive, and in any of the following selected locations. Click Next to start the search.
Floppy disk drives
CD-ROM drive
Microsoft Windows Update
Specify a location:
D:\1250\ENG\USB
Browse...
< Back
Next >
Cancel

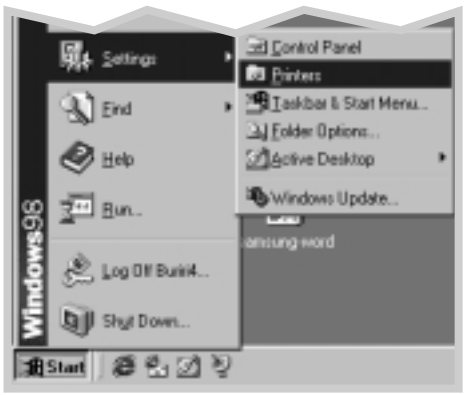
7 Click **Next**. The USB driver will be installed.

Add New Hardware Wizard
Windows driver file search for the device:
Samsung USB Laser Printer
Windows is now ready to install the best driver for this device. Click Back to select a different driver, or click Next to continue.
Location of driver:
D:\USB\SSUSB.INF
< Back
Next >
Cancel

8 Follow the instructions on the screen to complete the installation.

3. Set your PC printer port

1 From the **Start** menu, select **Settings**, then select **Printers**.



2 Select the **Samsung ML-1250 PCL 6** printer icon in the **Printers** folder.

3 Select **Properties** from the **File** menu.

4 Click the **Details** tab. Select **SSUSB: (ML-1250)** in the **Print to the following port** box. Click **OK**. The setup is now completed.

Frequently Asked Questions About USB

Q What is USB?

A

Universal Serial Bus (USB) makes it easy to connect devices to your computer without having to open your PC. USB uses a standard port and plug combination for connecting devices like printers, modems, scanners, and digital cameras. It also offers the benefit of being able to easily add, remove, and move devices.

Because USB is a relatively new technology, we recommended using a parallel printing connection. However, USB is an option to customers who want to print from Windows 98 across the USB cable. If your computer's USB port is enabled and properly setup, you can connect your printer to it or to a chain of USB devices via a USB cable.

Q How can I determine if my computer's USB port is enabled?

A

1. In Windows 98, select **Start** → **Settings** → **Control Panel**.
2. Double-click the **System** icon.
3. Click the **Device Manager** tab.
4. Click the plus (+) icon before the **Universal Serial Bus Controller** item.

If you see a USB host controller and a USB root hub listed, USB is properly enabled. If you have multiple hubs on the USB chain, try connecting your printer to a different hub or to another USB device. Also, make sure the cable connections are firm. (USB hubs are hardware devices into which you can plug multiple USB cables.)

If you do not see these devices listed, refer to your computer's documentation or contact the manufacturer for more information on enabling and setting up USB. Remember, you can always use a parallel cable to connect your printer's parallel port to your computer. (If you decide to switch to a parallel cable connection, you may need to remove and reinstall the printer software.)

Q Can other users on my USB chain print to my ML-1250 printer on the USB chain?

A Yes. Windows 98 allows you to "share" your printer using software settings on your computer. After others on the USB chain have installed the printer software for your specific printer, they can print to your shared printer.

Q After I install my printer, why isn't my ML-1250 printer assigned to an LPT printer port in the Print dialog box of my software application?

A USB uses a different naming convention for USB devices. After the printer has been installed, you see **SSUSB:(your printer name)** instead of **LPT**.

Q How can I increase printing speed and quality?

A When operated on a USB chain, your printer may become slower if other USB devices are being used while you're printing. For optimal print performance, avoid using other devices in the USB chain while printing.

Using Your Printer with Macintosh

Your printer supports Macintosh system with a built-in USB interface. When you print a file from Macintosh, you can use the PCL driver to support your printer's major printing features.

System Requirements

To use your ML-1250 printer and its software with a Macintosh, your system should have:

Macintosh Hardware Requirement:

- One of the following Macintosh models:
  -Power Macintosh series (with external network connection)
  -Power Macintosh G3, G4
  -iMac series
  -PowerBook series
  -iBook series
- USB interface

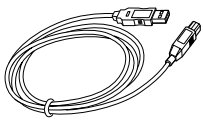
Macintosh System Requirement:

System 8.0 or later

Installing Software for Macintosh

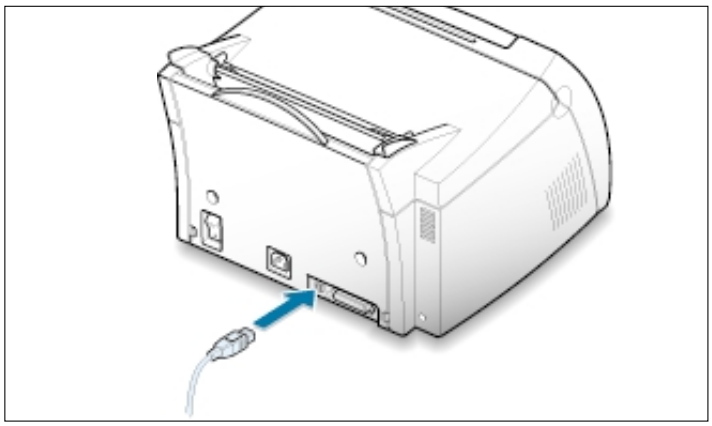
Connecting to Macintosh

You can connect the printer to your Macintosh using the USB interface.



1 Turn off the printer and computer.

2 Hold the USB cable so the icon faces up and connect it to your printer's USB connector.



3 Connect the other end of the cable to an available USB port on your Macintosh computer. If you have any connecting problems, please refer to your computer documentation.

Note: If you are using a USB hub, connect the printer's cable to the first tier of the hub or the printer may malfunction. If the printer doesn't work with the hub, connect it directly to the USB port.

Installing Software

1 Turn on your computer and printer.

2 Insert the CD-ROM which came with your printer into the CD-ROM drive.

3 Double-click the **Samsung ML-1250** on your Macintosh desktop.

4 Select the correct language, then click **Continue**.

5 Click **Install**.

6 After installation is complete, click **Quit**.

Choosing PCL Driver

1 From the **Apple** menu, select **Chooser**.

2 From the left pane of the Chooser window, click **SEC ML-1250**. Then the Samsung printer name will appear in the right pane of the Chooser window.

3 Click the ML-1250 driver, and close the Chooser window.

4 You see the message box indicating that you have changed your current printer. Click **OK**.

5 Then you see the ML-1250 printer icon is created as a desktop printer.

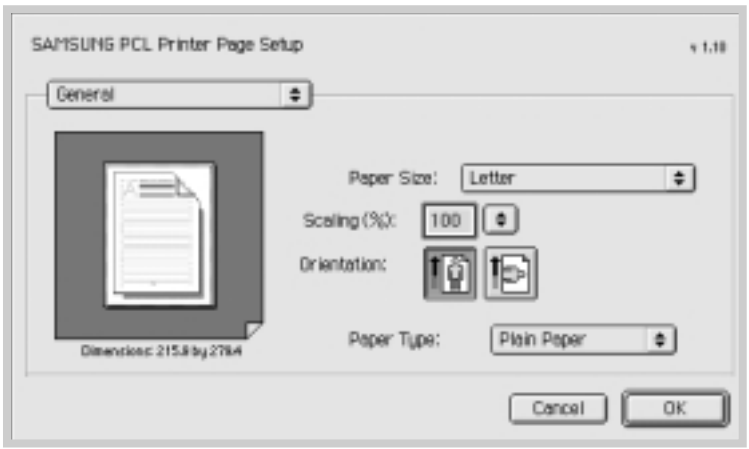
Printing from a Macintosh

When you print with a Macintosh, you need to check the printer software setting in each application you use. Follow these steps to print from a Macintosh:

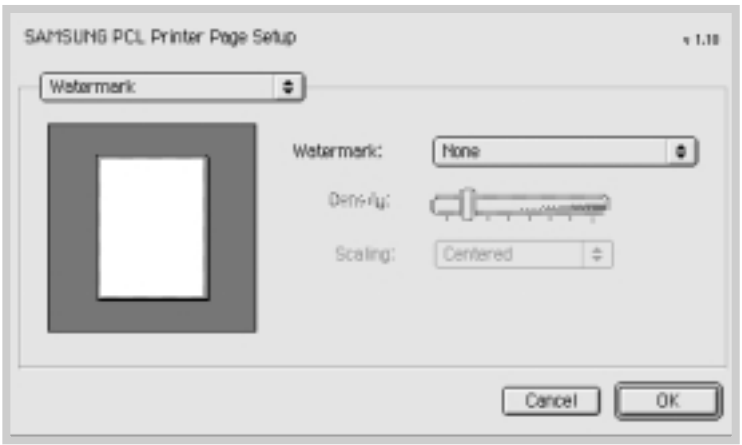
1 Open a Macintosh application and select a file you want to print.

2 Open the **File** menu, and click **Page Setup** (**Document Setup** in some applications). You see the Page Setup dialog box.

3 Choose your paper size, orientation, paper type and other options and click **OK**.

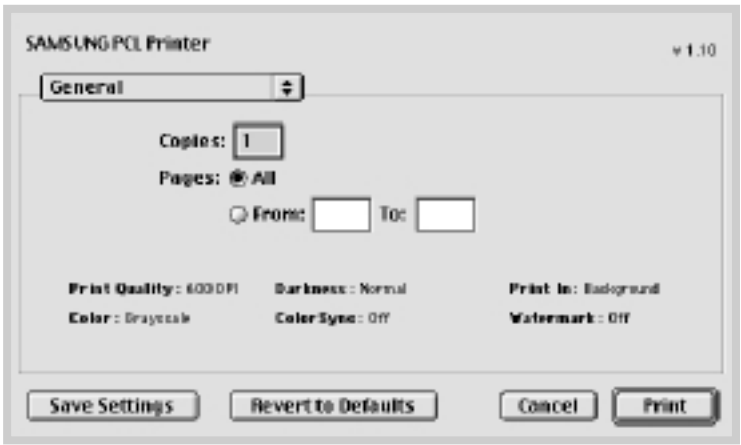


Choose Watermark if you want to add a watermark to each page in your document to emphasize its purpose or indicate how it should be handled. For details on the watermark option, see page 5.14.

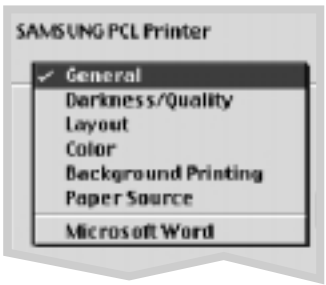


4 Now open the **File** menu and click **Print**. You see the main printer settings dialog box.

5 Choose the number of copies and indicate which pages you want to print. For advanced printing features, select the desired option. For details, see page A.21.



Select the desired option for advanced printing features.



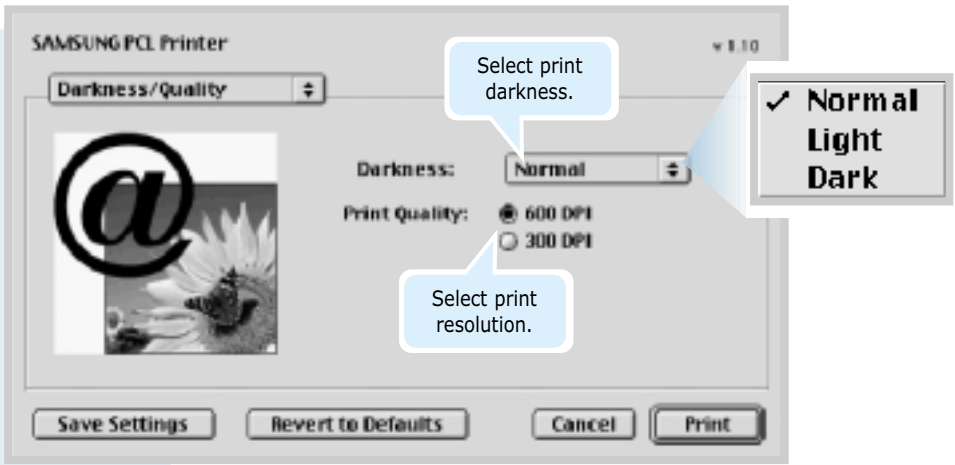
6 Click **Print** when you are finished checking your settings.

Advanced Printing

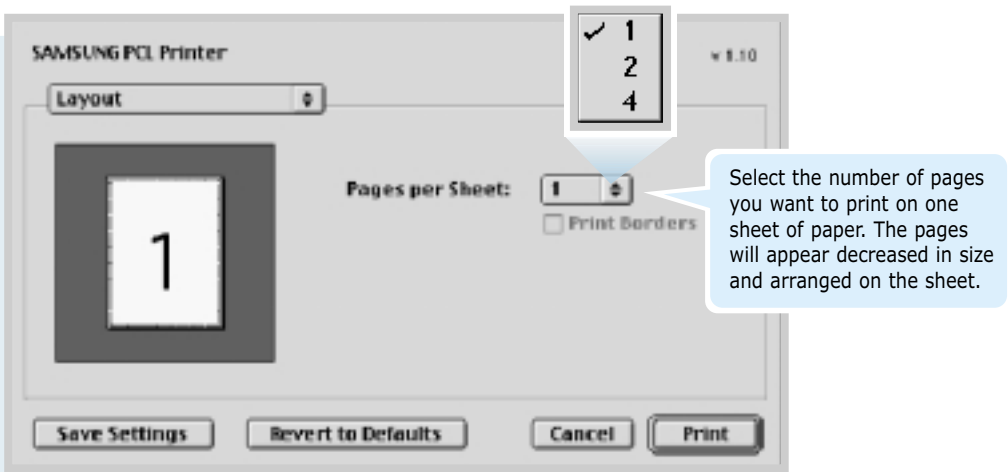
The Page Setup dialog box contains five categories of page setup properties. Listed below is the name of each property.
-Darkness/Quality
-Layout
-Color
-Background Printing
-Paper Source

Figures below display each property in the Page Setup dialog box.

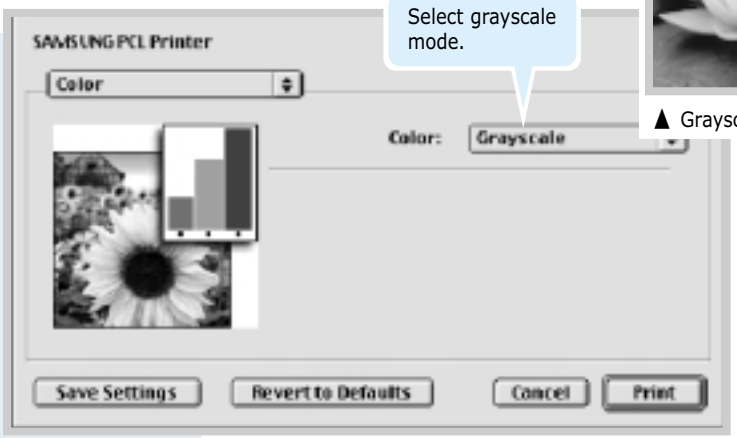
Darkness / Quality



Layout



Color

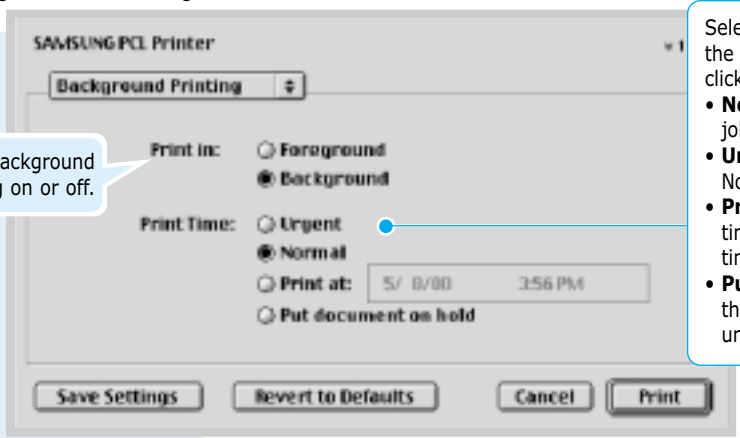


Select grayscale mode.

▲ Grayscale

▲ Black&White

Background Printing

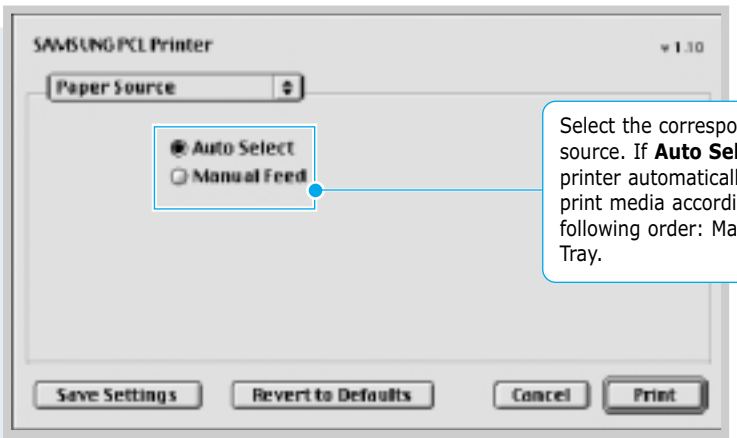


Turns background printing on or off.

Select a priority for your print job in the queue of jobs waiting to print, click one of the following:

- **Normal** to print in the order the job is received.
- **Urgent** to print before any Normal priority job.
- **Print at:** to print at the specific time you enter in the day and time in the fields to the right.
- **Put document on hold** to hold the print job in the print queue until you are ready to release it.

Paper Source



Select the corresponding paper source. If **Auto Select** is set, the printer automatically selects the print media according to the following order: Manual Tray, Auto Tray.

Printing from DOS Applications

While your printer is primarily a Windows printer, you can also print from a DOS software program using the Remote Control Panel utility provided in the ML-1250 CD-ROM.

About Remote Control Panel for DOS

DOS users have access to many printer features through specific DOS printer drivers; however, many software manufactures do not develop printer drivers for their software programs. The Samsung ML-1250 printer provides the DOS software control panel for improved printer control when DOS printer drivers are not available or when certain print settings are not available through DOS software programs.

Notes:

- ML-1250 printer's Remote Control Panel for DOS can be used when the printer is connected via the parallel interface.
- The ML-1250 printer's Remote Control Panel is not a printer driver. It should be used to set print settings that are not available through DOS software programs. Printer drivers are supplied by the manufacturers of your DOS software programs. If your DOS software program does not include a printer driver for your Samsung printer, contact the manufacturer of the software program or use one of the alternate printer drivers.

Installing the Remote Control Panel for DOS Users

The Remote Control Panel utility is provided on the printer software CD-ROM. If you do not have a CD-ROM drive, refer to "Installing Software from Diskette" on page 2.13 for information on obtaining printer software on diskettes.

To install the DOS Remote Control Panel:

1. Insert the printer software CD-ROM or RCP diskette in your computer's drive.
2. At the DOS prompt, make a directory that you want to use for the DOS software and change to that directory.
3. From the floppy drive, type:
   COPY x:*.* (where **x** is the floppy drive designator)

   From the CD-ROM drive, type:
   COPY x:\1250\xxx\RCP*.* (where **x** is the CD-ROM drive designator and **xxx** is the designator for your language. See the list on the left for the designator for each language).

   Then press **Enter**.

Language Codes

Code	Language
DEU	German
ENG	English
SPN	Spanish
FRN	French
ITA	Italian

Selecting Print Settings

When you are running DOS, you can use this Remote Control Panel to select print settings that may not be available from some DOS programs. Typically, duplicate print settings that are selected from a DOS software program override print settings selected in the ML-1250 Remote Control Panel.

Note: After you change the RCP settings, you must send it to the printer by pressing **Send** on the RCP screen.

To access the Remote Control Panel

1. Make sure that the Remote Control Panel is in your path statement. You can check your path by typing **PATH** and pressing **Enter**. If the Remote Control Panel directory is not in your path, you will have to change to the default directory **C:\DOSUTIL** to start the program.

2. At the DOS prompt, type **DOSRCP** and press **Enter**.

After the Remote Control Panel appears, you can activate its selections in one of two ways:

- With the mouse – Move the mouse to position the pointer on the desired selection, then click the left mouse button.

- With the keyboard – Press the key that corresponds to the highlighted letter in the selection name.

The Remote Control Panel allows you to access the following features:

PRINTING

- **Paper Size** sets the paper size.

- **Paper Source** sets the default paper source.

- **Copies** sets the number of copies printed for each page.

- **Orientation** determines how the output is printed on the page.

- **Top Margin** sets the top margin of the print material.

- **Left Margin** sets the left margin of the print material.

- **Auto CR** sets how the printer performs a carriage return.

- **Quality** determines the print resolution.

CONFIG

- **Power Save** determines the length of time the printer waits after a job is printed before it goes to a reduced power state. If the printer is used frequently, select **OFF** which keeps the printer ready to print with the minimum warm-up time. This uses more electricity to keep the printer warm and ready to print.

- **Econo Mode** determines the toner quantity the printer should use when printing. If set to **ON**, the printer conserves toner when printing. The default value is **OFF**, which provides 100% usage.

- **Auto Continue** determines what action the printer should take when a manual feed print job is sent to the printer and there is no paper in the Manual input tray. If set to **ON**, the printer will pick up the paper from the Automatic input tray after fifteen seconds. Otherwise, the printer will wait for you to load paper in the Manual Tray.

- **Jam Recovery** determines what action the printer should take when a paper jam occurs. When set to **OFF**, the printer does not reprint a page that has jammed. When set to **ON**, the printer keeps the image in memory for a printed page until the printer signals that the page has successfully printed. The printer reprints all jammed pages.

- **Altitude** With this option checked, you can optimize the print quality for a low pressure area, such as a high ground.

JOB

- **Timeout** determines the amount of time (in seconds) the printer will wait before printing the last page of a print job that does not end with a command to print the page or a formfeed character. Valid range is 0 to 300 seconds.

- **Paper Type** provides the printer with information about the type of paper to be used for a print job. For the best result, set this to the paper type you loaded in the paper tray in the printer. When using the plain paper, set this to **Plain paper**.

- **SRT Mode** makes the printer optimize the print quality to 1200 dpi class image quality.

TEST

Demonstration Page prints the demonstration page. It shows features, the specifications, a list of the user default settings and the amount of printer memory available for printing.

PCL 5e

- **Typeface** allows you to select the desired typeface. This setting is ignored when the software application specifies a font.
- **Symbol Set** determines the symbol set. A symbol set is a set of alphabetic and numeric characters, punctuation, and special symbols used when printing with a selected font.
- **Pitch** sets the font pitch (only if you have selected a scalable monospaced font). Pitch refers to the number of fixed-space characters in a horizontal inch of type.
- **Lines Per Page** sets the number of lines that print on each page. The setting can range from 5 to 128 lines per page.
- **Point Size** sets the font point size (only if you have selected a scalable typographic font). Point size refers to the height of the characters in the font. One point equals approximately 1/72 of an inch. You can select point sizes from 4.0 to 999.75 in increments of 0.25 points.
- **Courier** determines the courier font type: Regular or Dark.

Linux Driver Installation

This Linux driver is designed for Samsung ML-1250 printer and supports Linux Red Hat 6.0 or higher and Intel Linux. If your Linux version is not included, this driver might not work properly.

■ Install Setup Script file configuration
  a. /cdrom/linux/install.sh
  b. /cdrom/linux/ssprt.db
  c. /cdrom/linux/readme.txt

Installation

To install the driver, open the x terminal screen and take the following steps:

1. Mount the CD-ROM drive.

Note: To mount the CD-ROM drive, you must be a super user or must be authorized to mount the CD-ROM by the super user. If you fail to mount the CD-ROM drive, ask the system administrator.

To mount the CD-ROM drive:

1 Insert the Samsung ML-1250 CD-ROM into the CD-ROM drive.

2 Mount the CD-ROM drive under a directory like **/mnt** in order to access the files on the CD-ROM:
>mount -t iso9660 /dev/cdrom /mnt/cdrom

2. Install setup script.

For details on installing the setup script, refer to the **/cdrom/linux/readme.txt** file.

Add the driver to the printer list by typing in:
/cdrom/linux>install.sh (or)
/cdrom/linux>./install.sh (if the path of the current working directory is not determined.)

3. Set up the printer filter.

To set up:

1. Run **printtool** at x terminal.
2. To add the printer driver, click the **Add** button.
3. In the Add a Printer Entry window, decide the printer type you will use. Select **Local Printer** if you have a PC-connected printer.
4. Click the **OK** button.
5. If the **Info** button appears, ignore it, then click the **OK** button.
6. The Edit xxxx Entry window opens (where xxxx is the printer type you have selected at step 3).

   If you are not an advanced user, do not change the **Names/Spool Directory/File Limit in Kb/Printer Device** option.
7. Click the **Select** button in the **Input Filter** to access filter setup.
8. Select **Samsung Printer PCL 5e Compatible** for the Printer Type item. Then select the default resolution and paper size.
9. To save the setting, press the **OK** button.
10. In the Edit xxxx Entry window, press the **OK** button to complete the printer driver installation.
11. You can find that the printer driver is added to the driver window. Select **Quit** from the **PrintTool** menu.

Installing Optional Memory Card

Your printer is a full-featured laser printer that has been optimized to meet most of your printing needs. Recognizing that each user may have different requirements, however, Samsung makes the optional memory card available to enhance the printer's capabilities.

Precautions

DISCONNECT THE POWER CORD:

Never remove the printer control board while the printer is plugged in.

To avoid the possibility of electrical shock, always disconnect the power cord when installing or removing ANY internal or external printer option.

DISCHARGE STATIC ELECTRICITY:

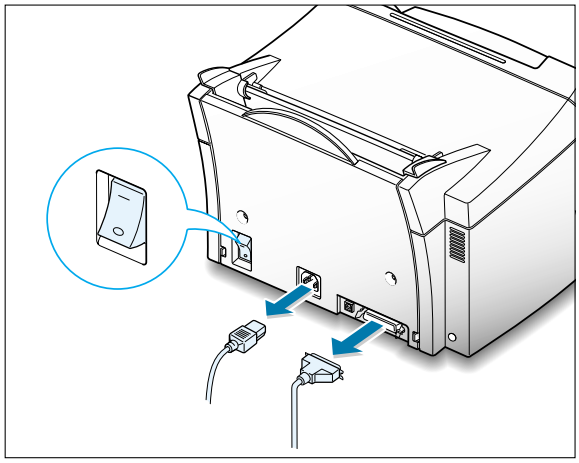
The control board and the Memory SIMM are sensitive to static electricity. Before installing or removing an internal option, discharge static electricity from your body by touching something metal, such as the metal back plate on any device plugged into a grounded power source. If you walk round before finishing the installation, discharge any static electricity once again.

Installation

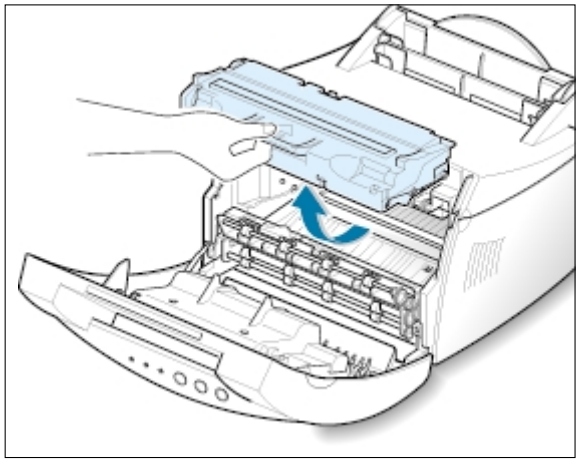
Additional printer memory is provided on SIMMs (single in-line memory modules).

Note: ML-1250 has 4 MB standard of the printer memory and you can expand the memory up to 68 MB.

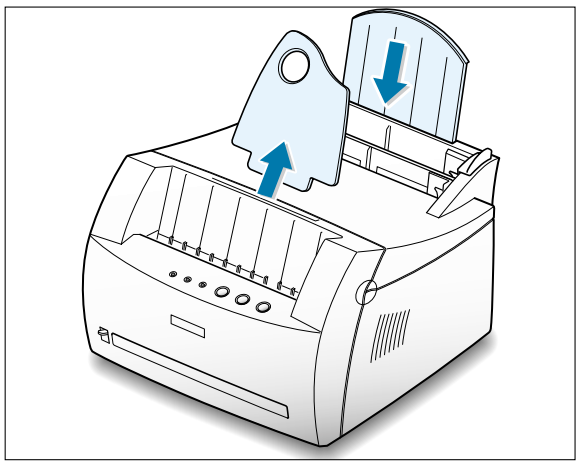
1 Turn the printer power off and unplug all cables from the printer.



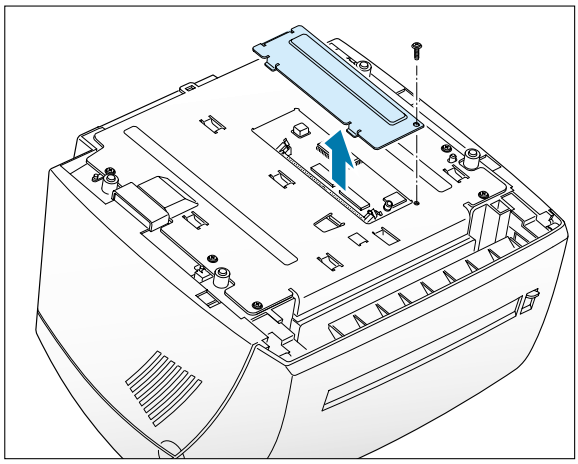
2 Open the front cover and remove the toner cartridge.



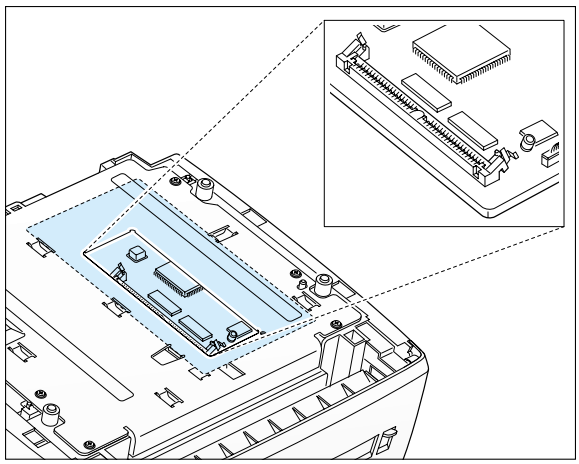
3 Remove the paper output support and push down on the paper support until it is recessed into the printer body.



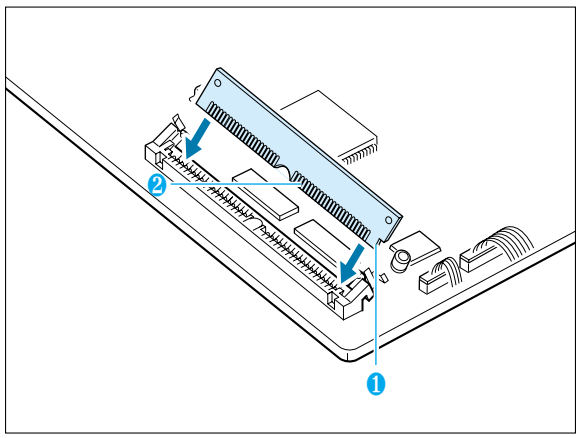
4 Turn the printer upside down, and remove one screw securing the shield cover, then remove the cover.



5 Locate the connector on the control board.

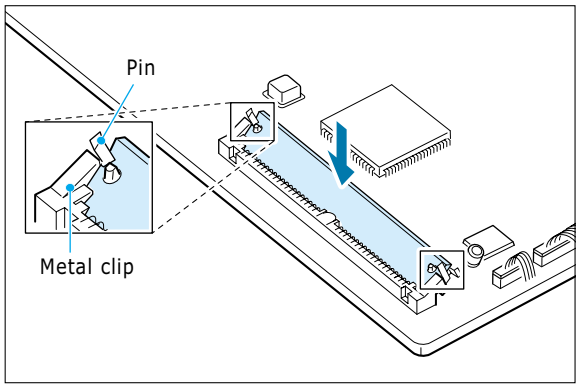


6 Hold the memory SIMM so that the notch ❶ and the connection point ❷ are aligned with the slot as shown, and insert it all the way into the connector at a 30 degrees angle.

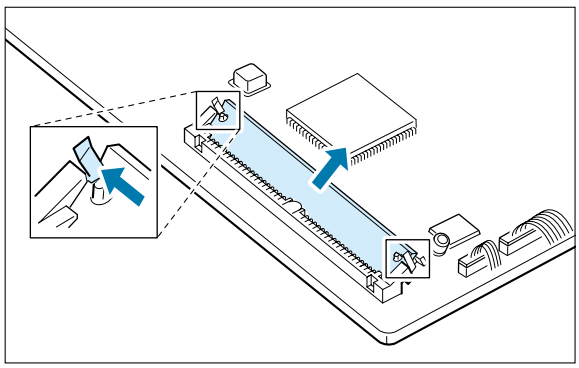


7 Push the SIMM down until it snaps into place.

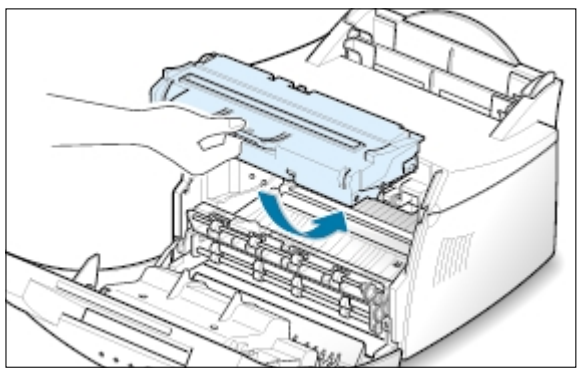
Make sure that the SIMM is secured in place by the metal clips and pins on both sides of the connectors.



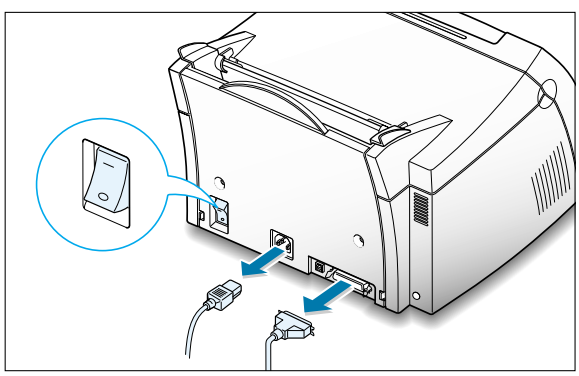
Note: When you disassemble the memory card, push out on the metal clips at each end of the connector, and pull it as shown.



8 Reassemble the shield cover, turn the printer back over, and replace the toner cartridge.



9 Reconnect the printer cable and the power cord and turn the printer on. Then, replace the supports.



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